

FIG. 1

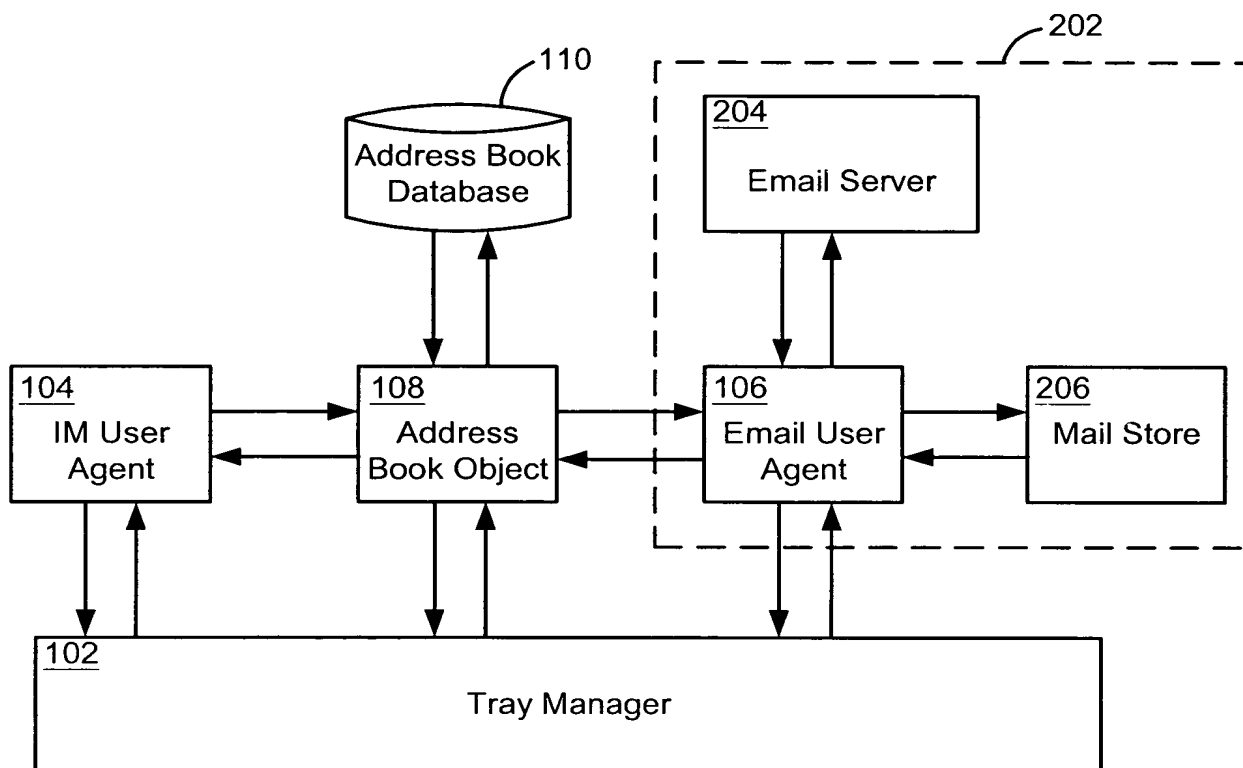


FIG. 2A

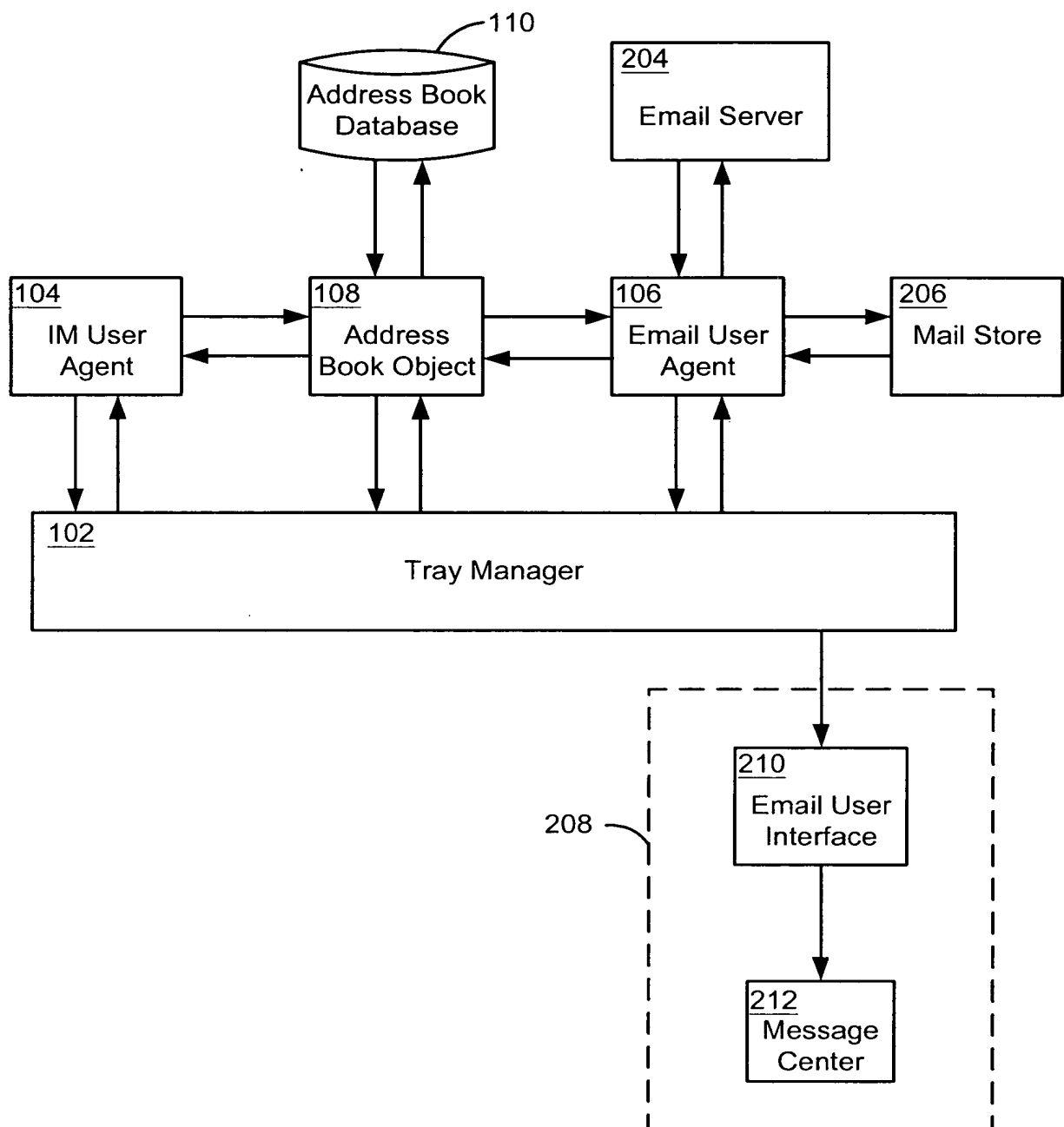


FIG. 2B

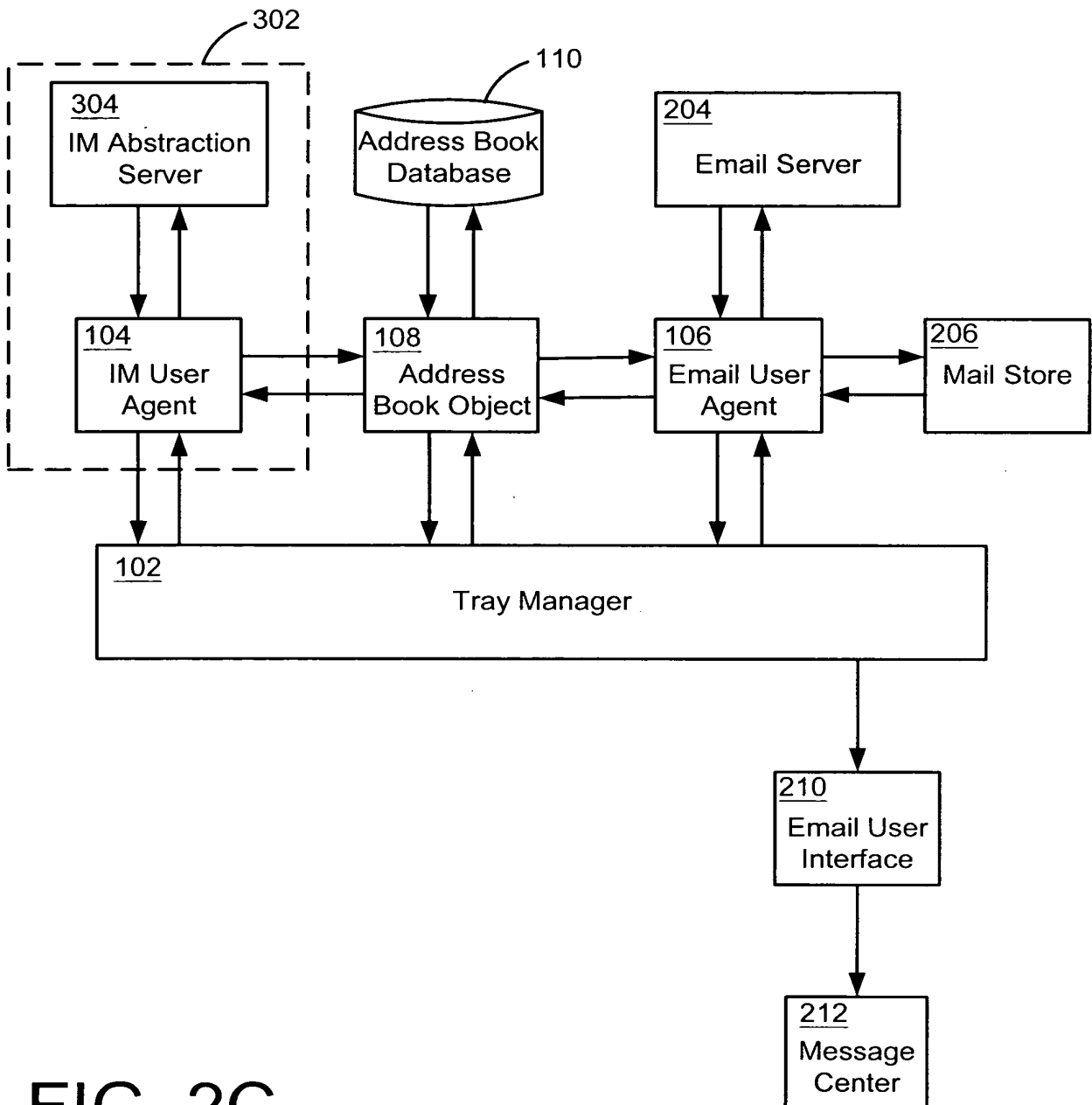


FIG. 2C

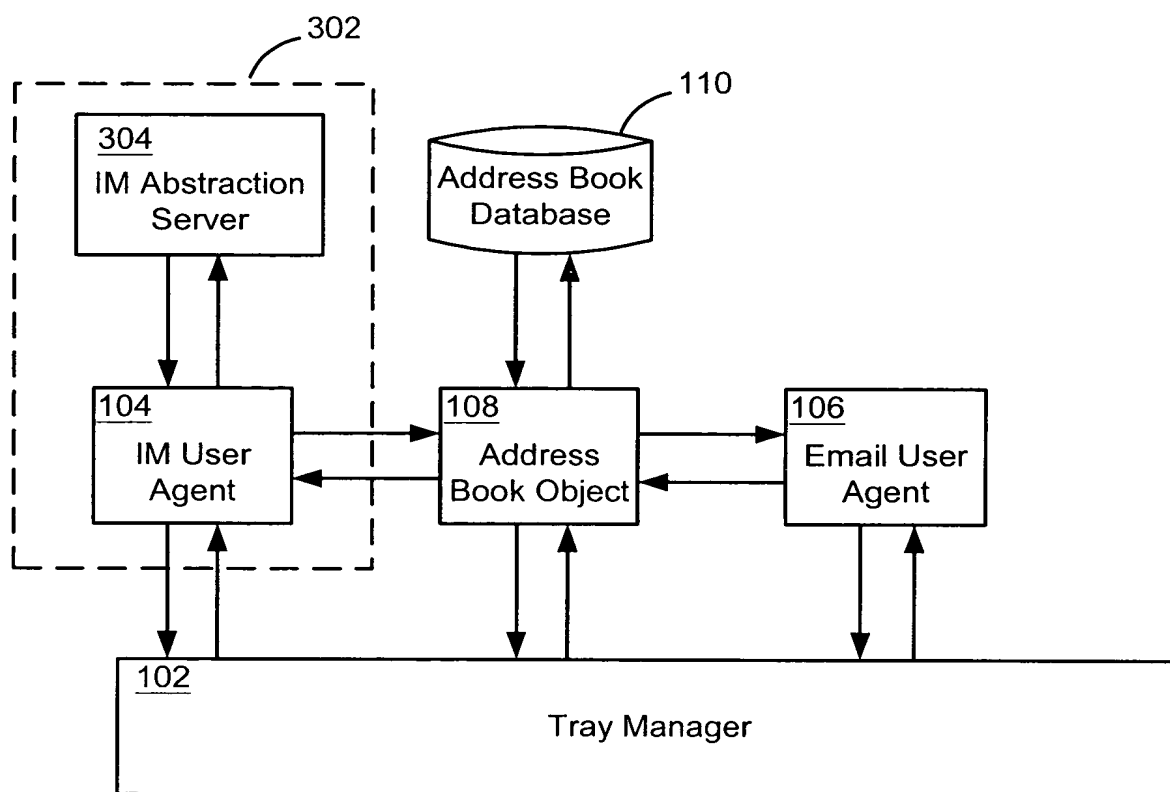


FIG. 3A

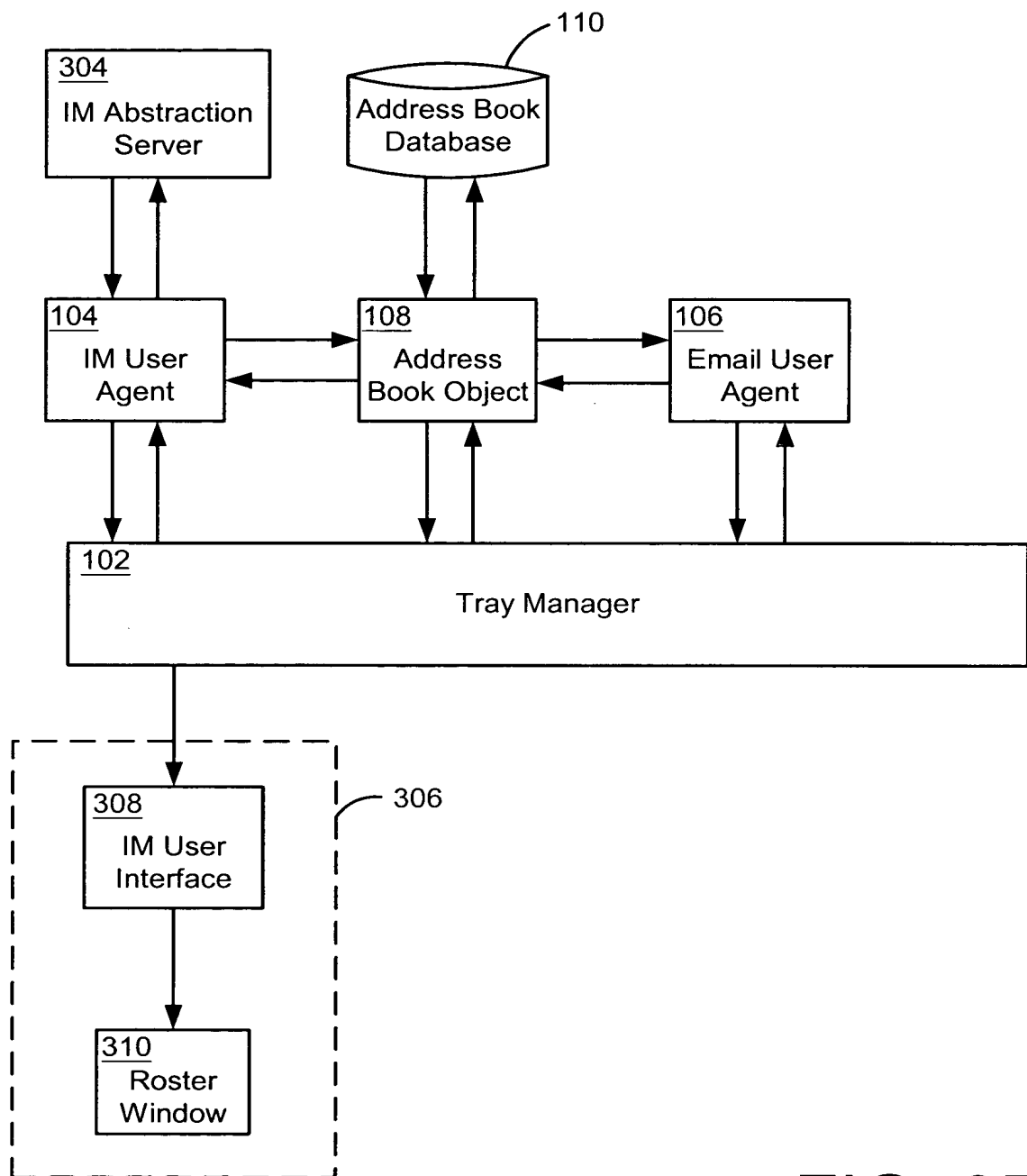


FIG. 3B

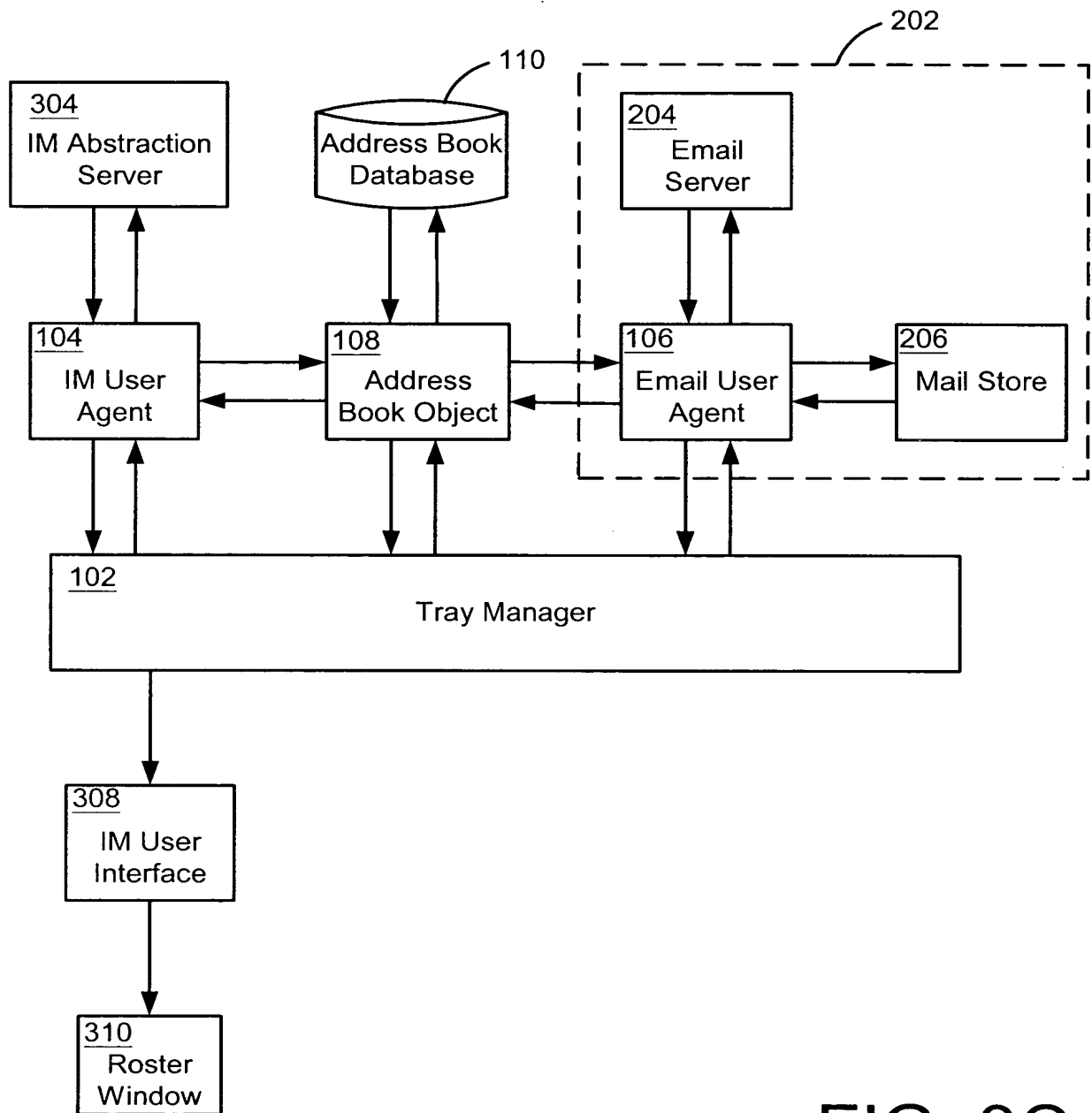


FIG. 3C

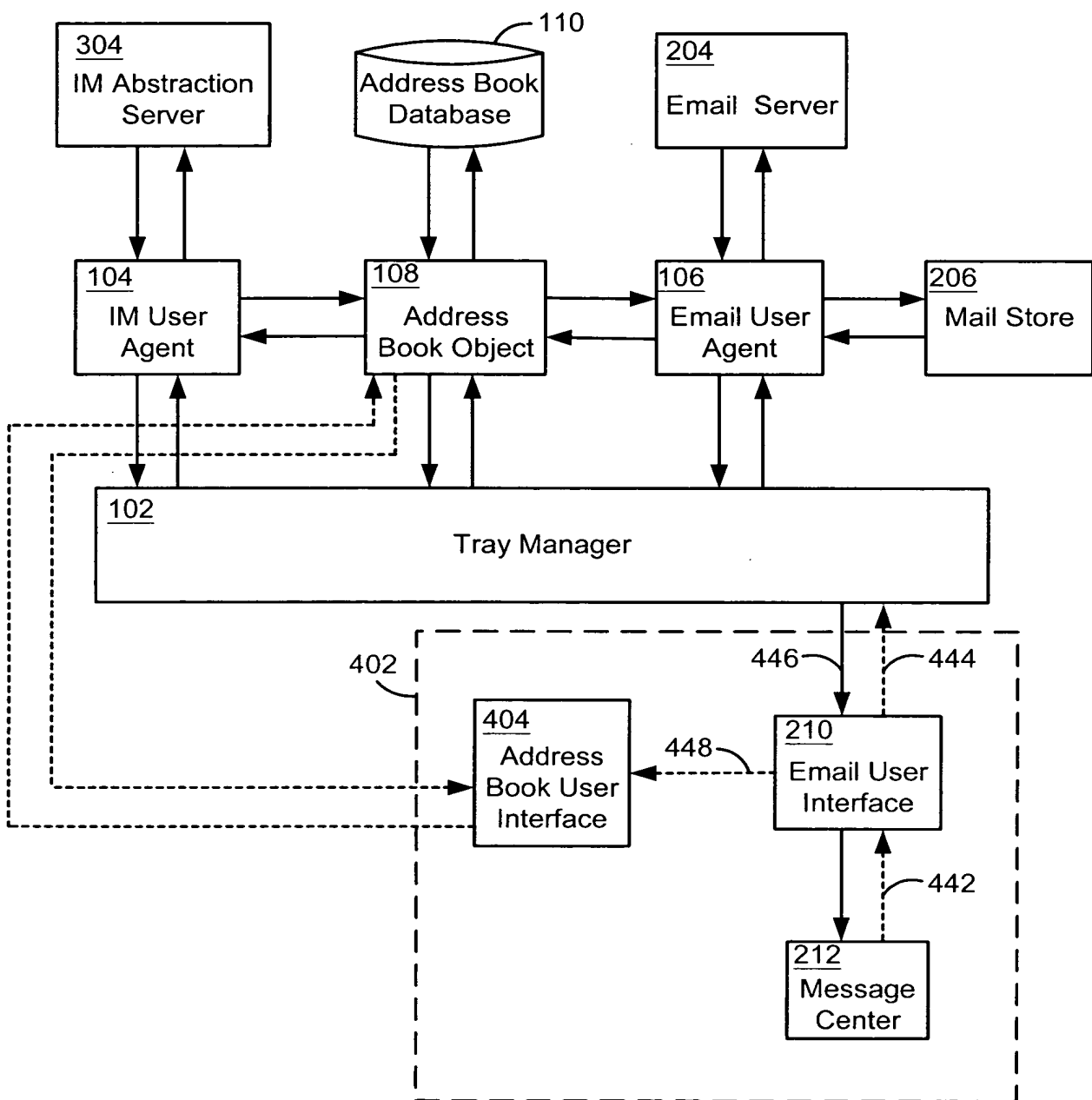


FIG. 4A

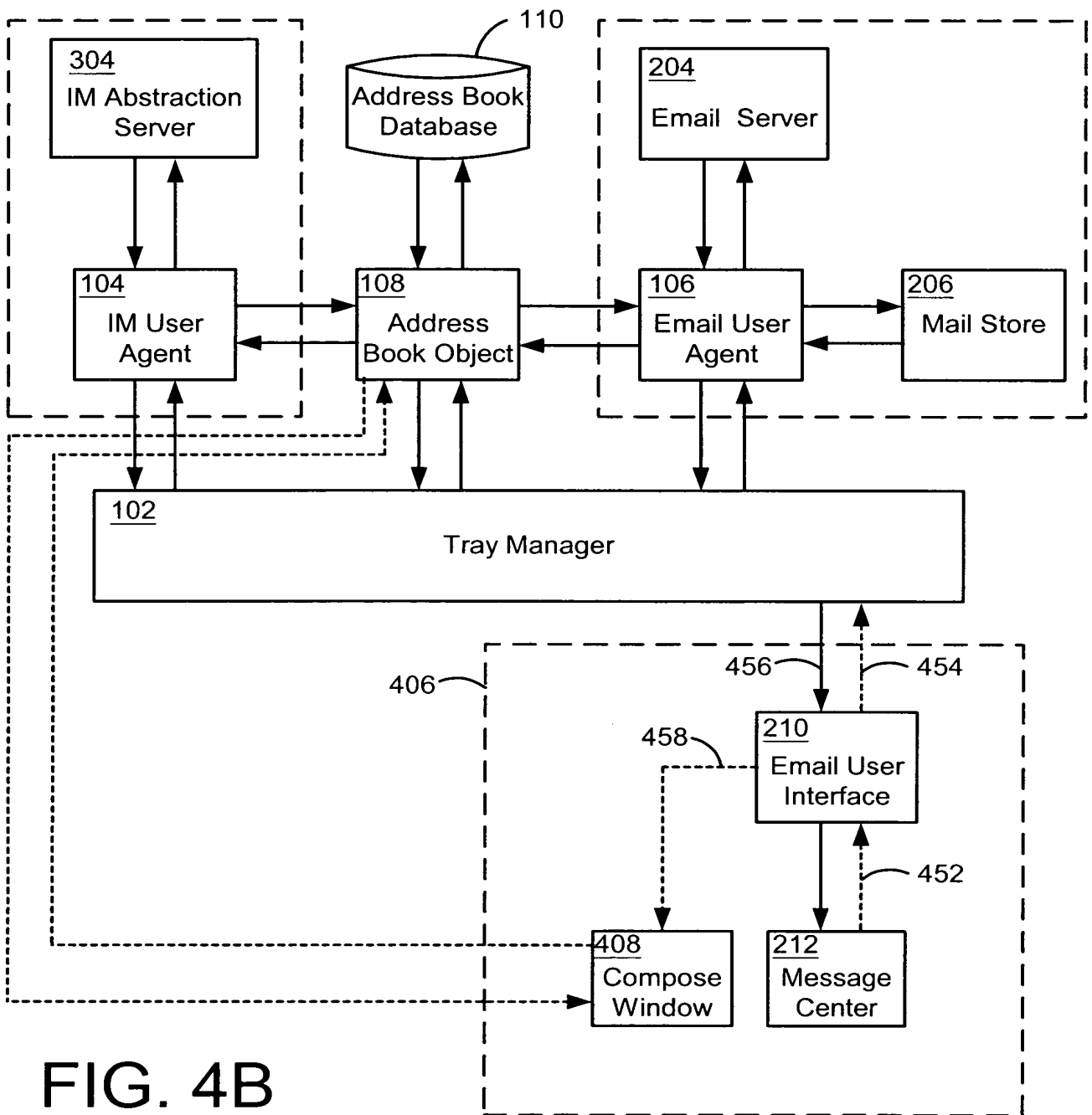


FIG. 4B

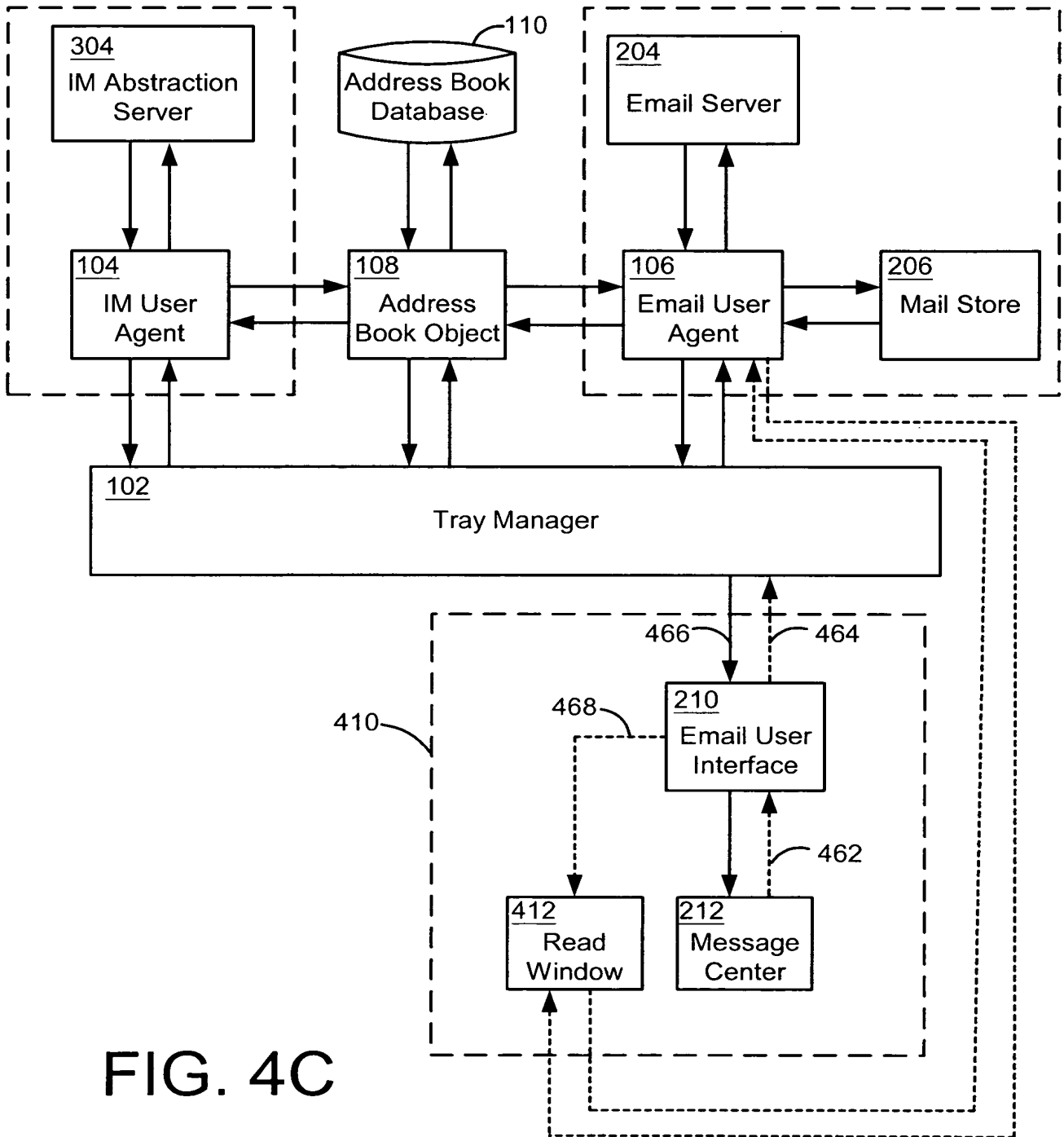


FIG. 4C

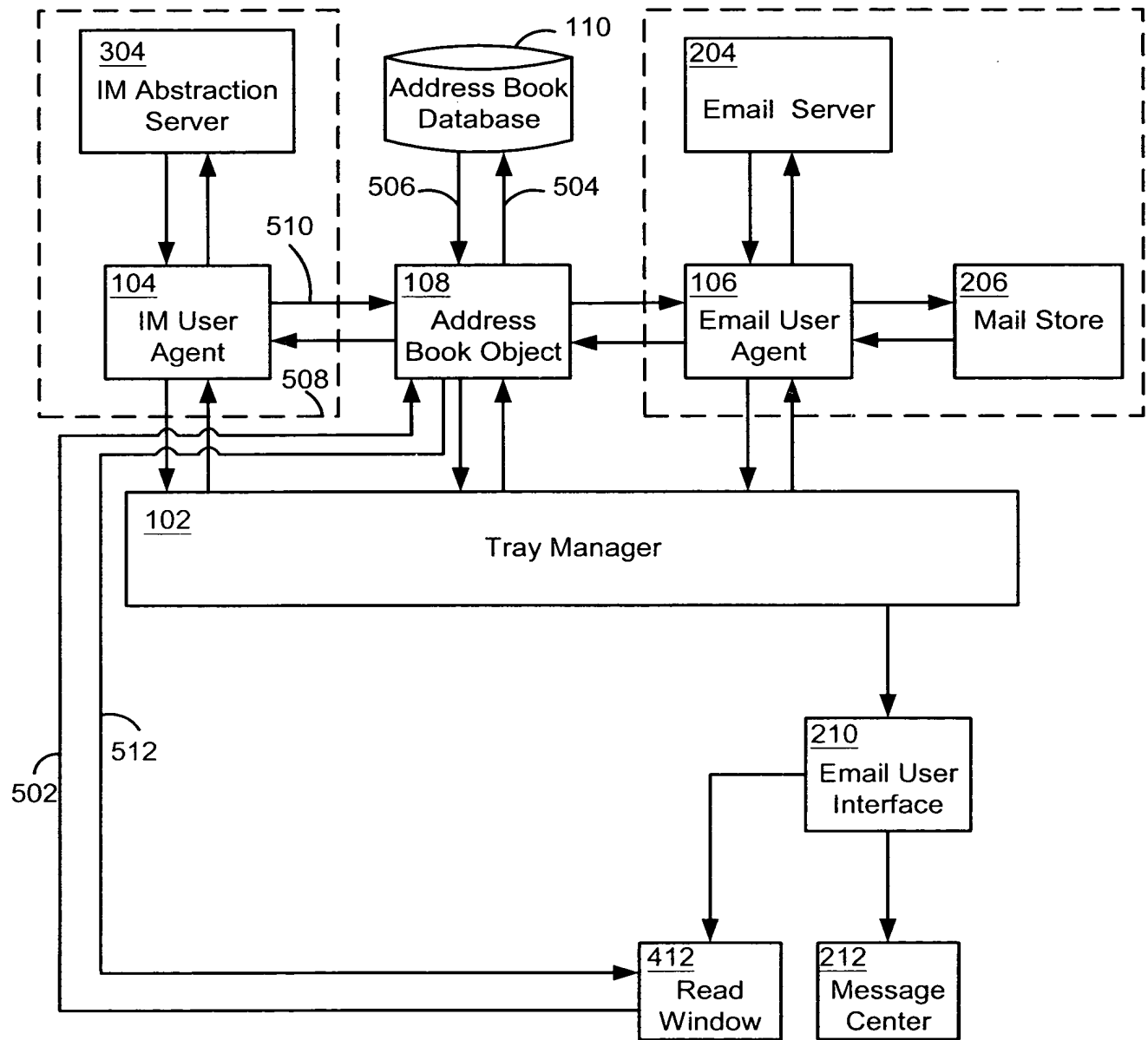


FIG. 5

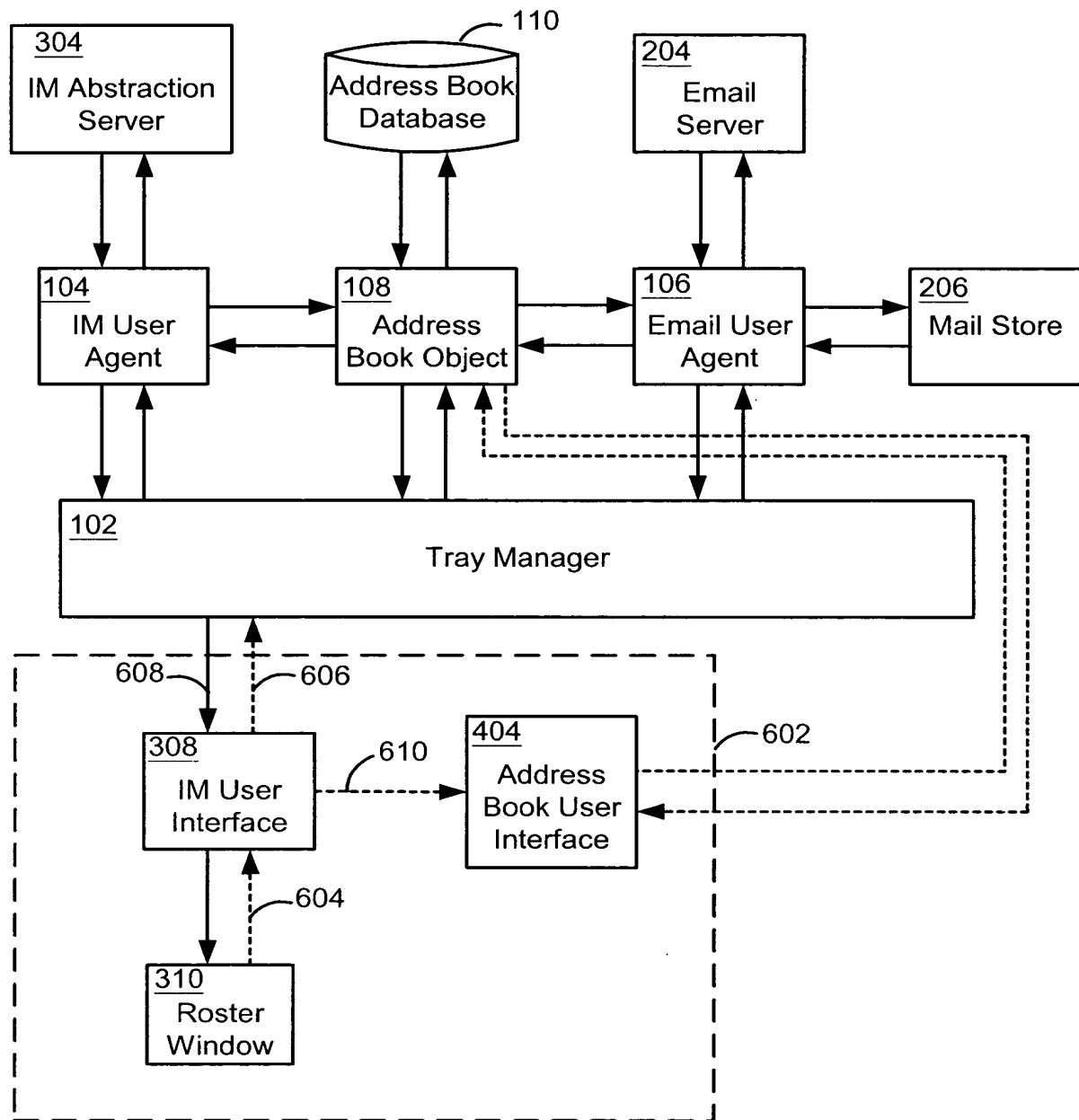


FIG. 6A

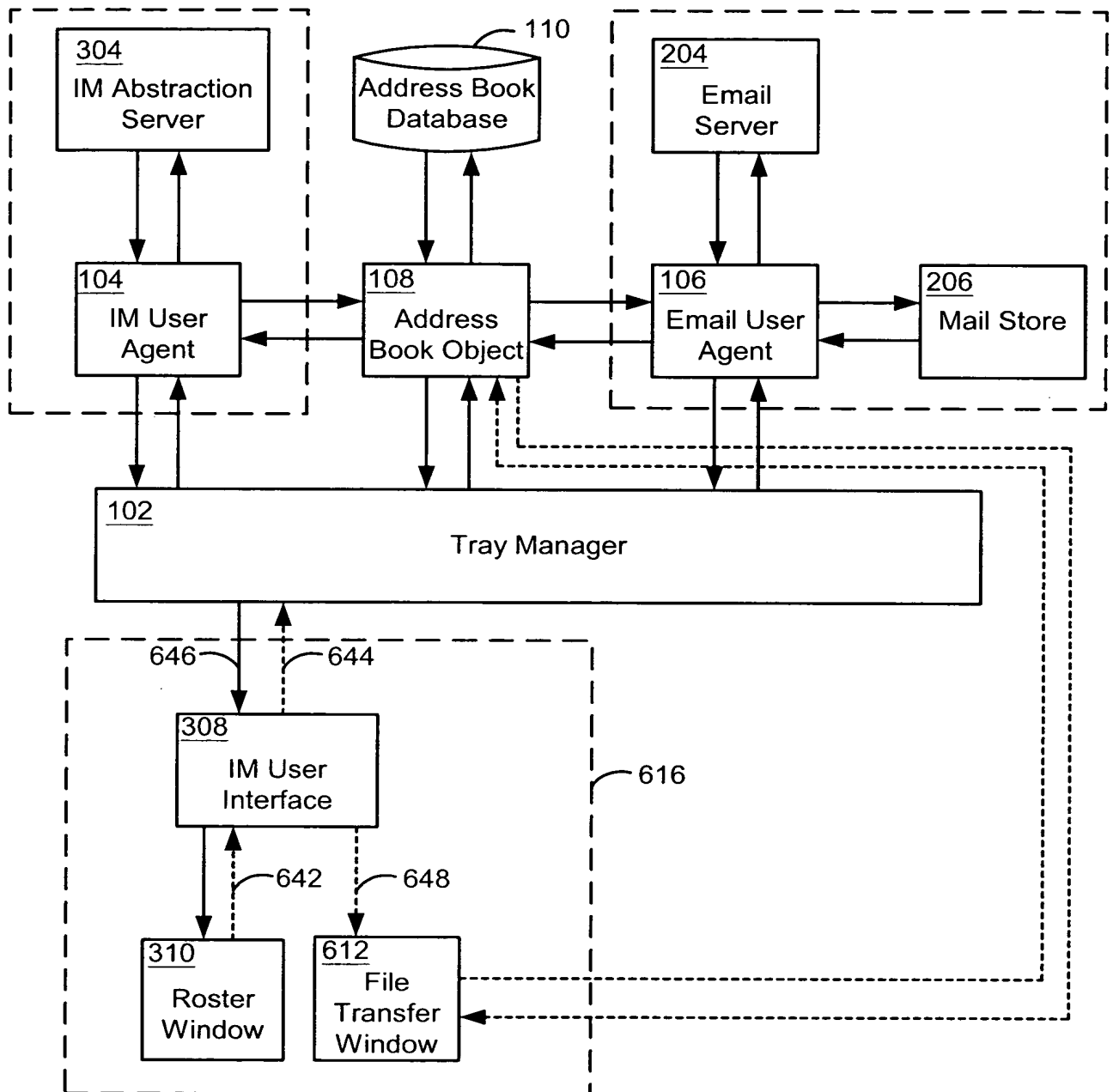


FIG. 6B

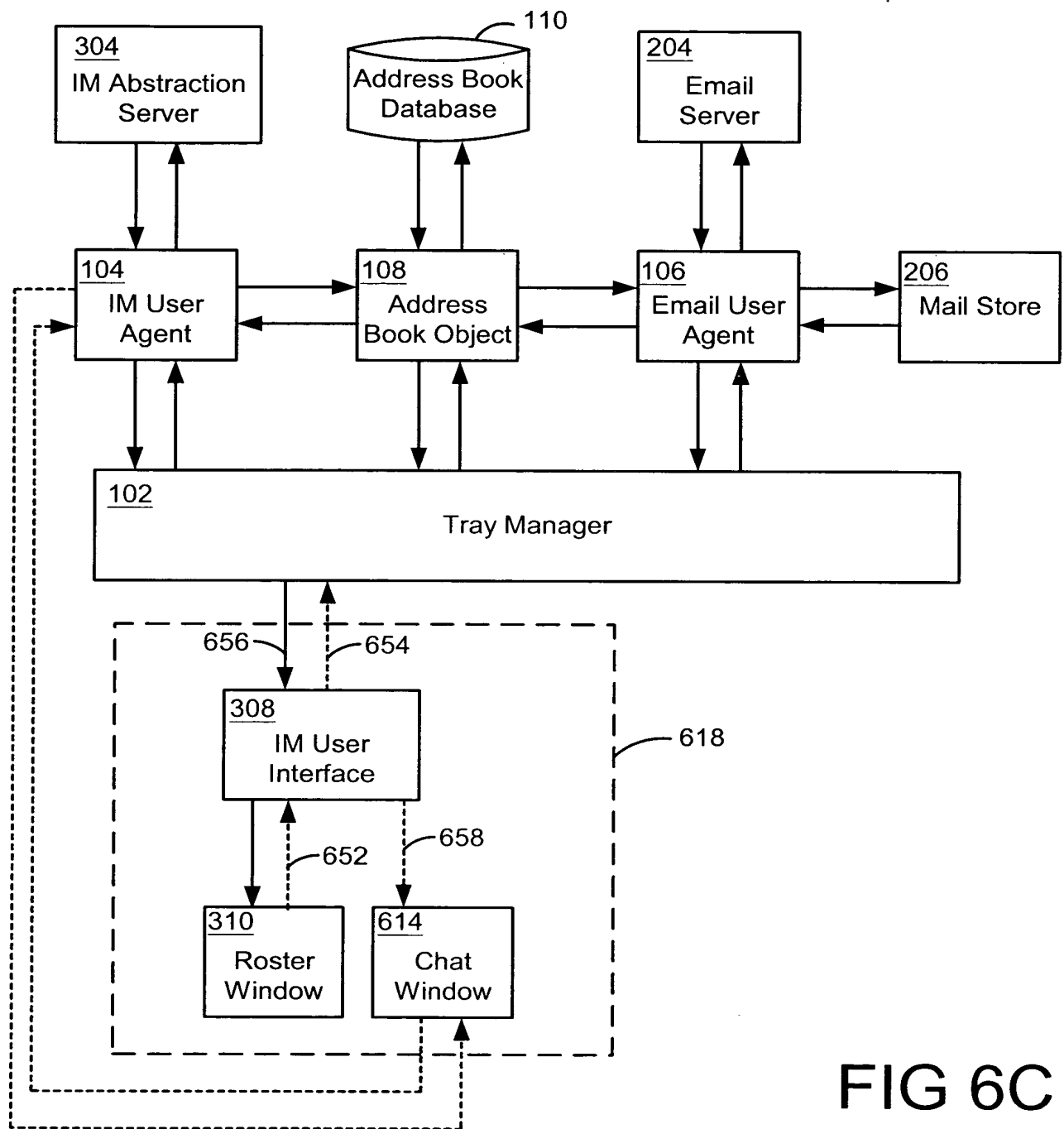


FIG 6C

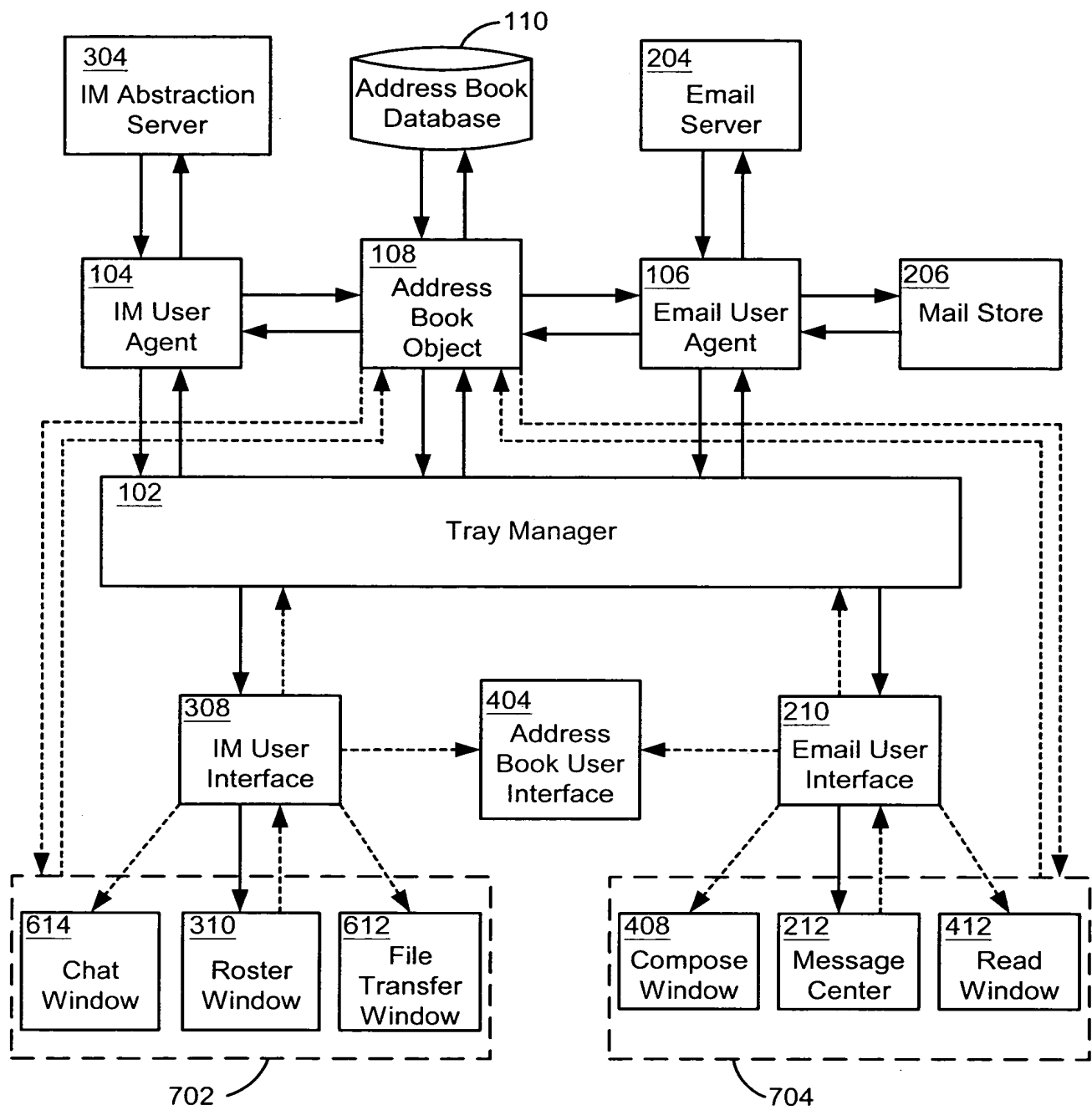


FIG. 7

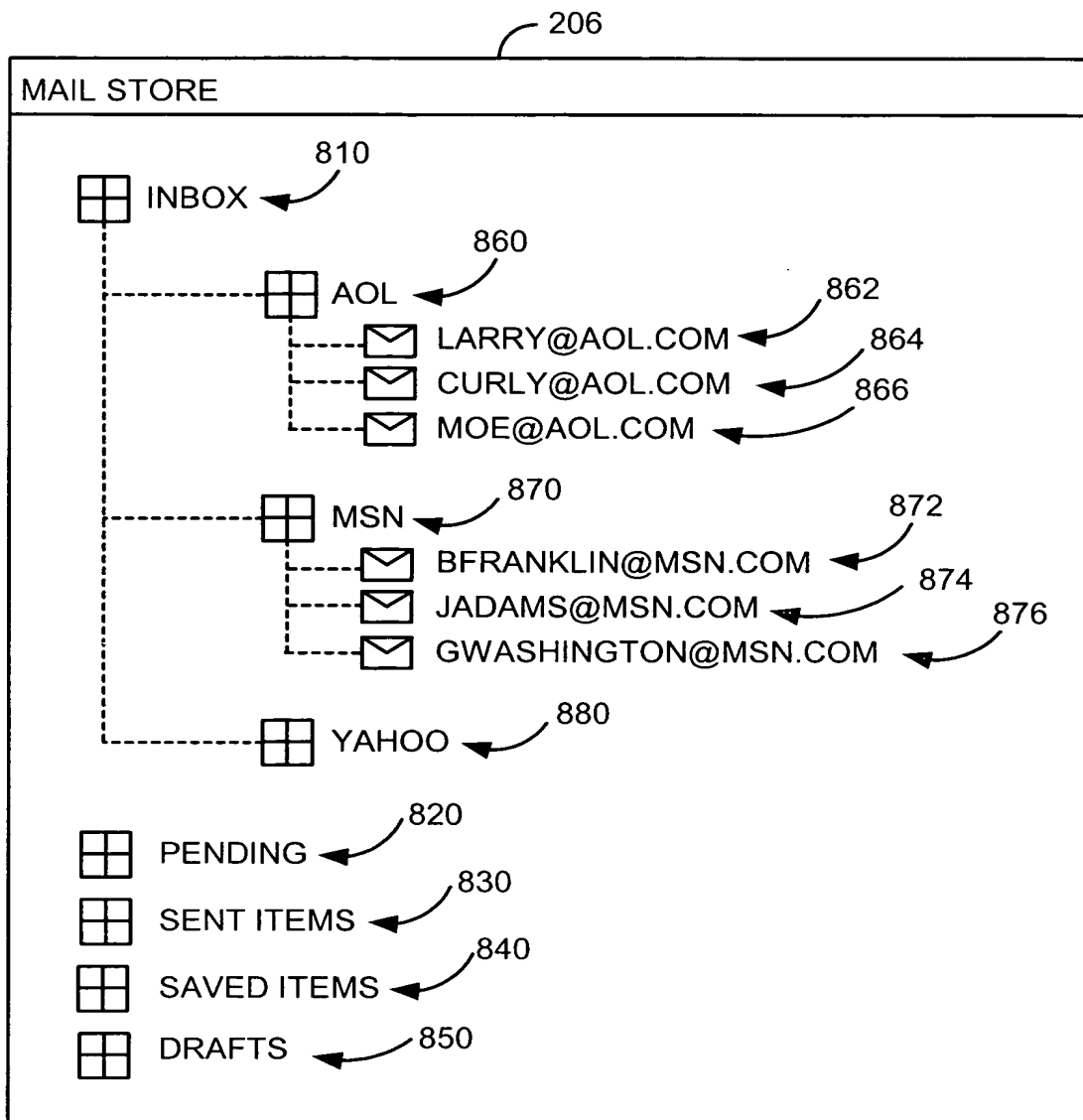


FIG. 8

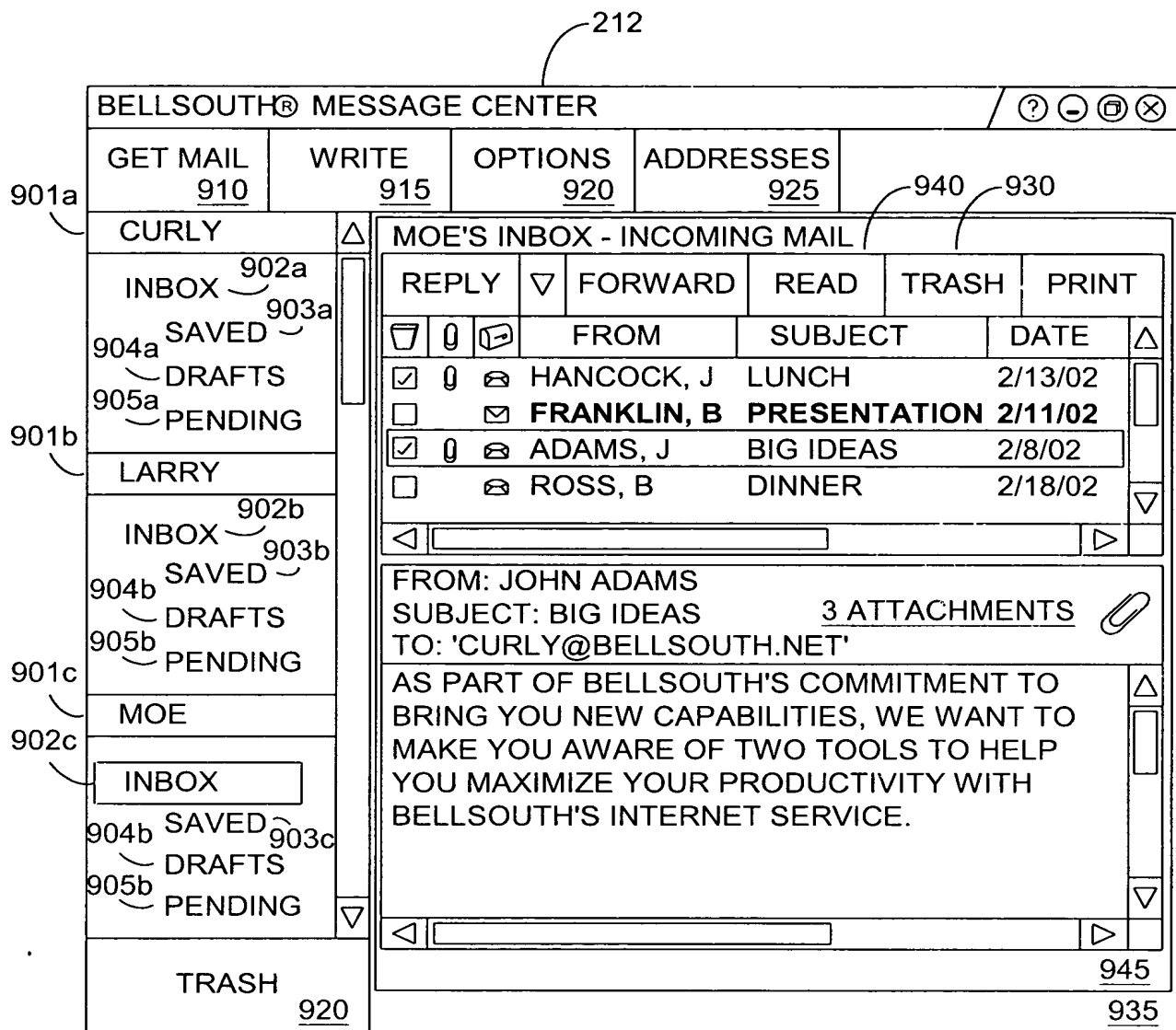


FIG. 9

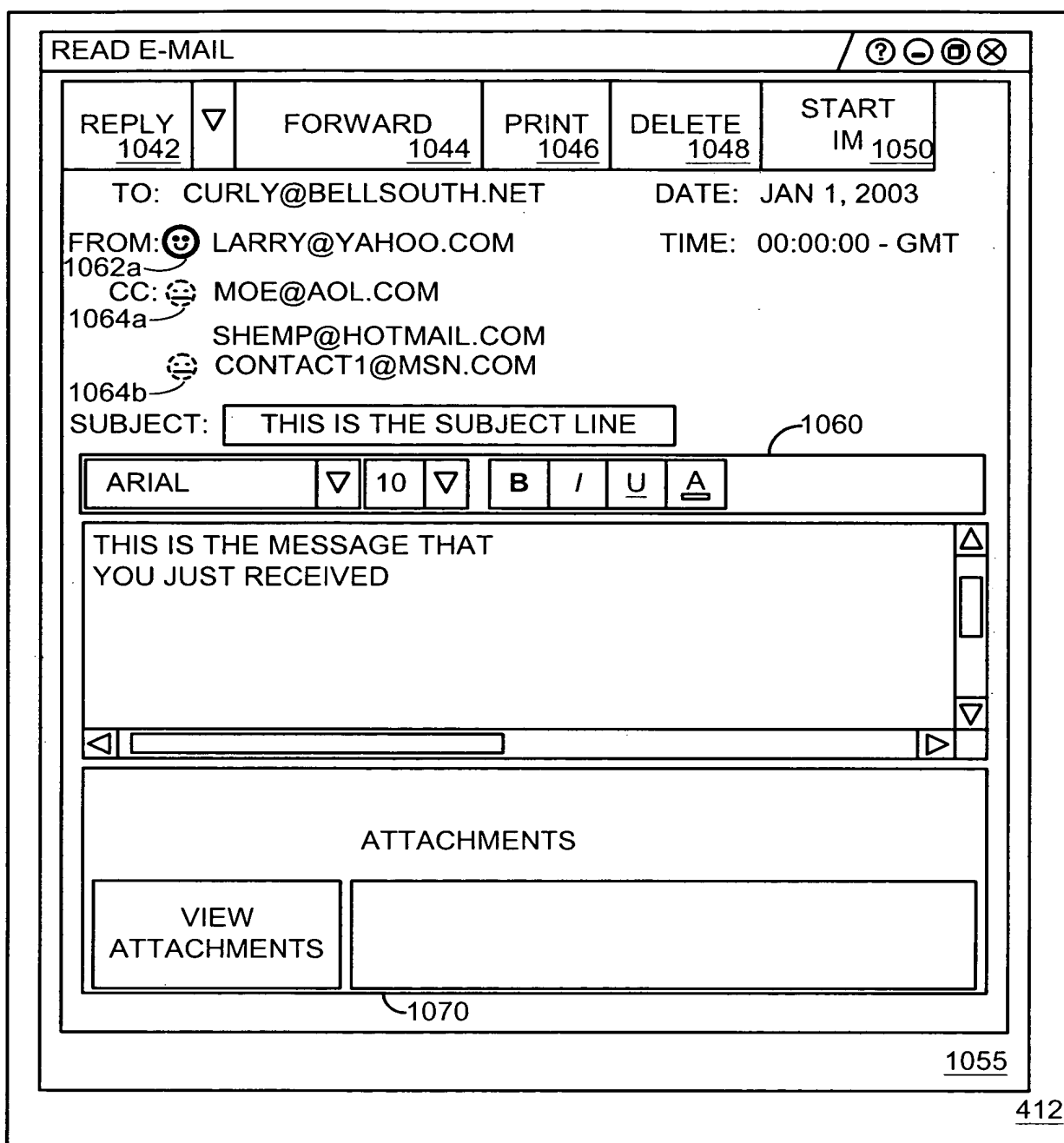


FIG. 10

ADDRESS BOOK

?

YOUR CONTACTS ARE IN ALPHABETICAL ORDER BY LAST NAME. TO FIND A SPECIFIC CONTACT, YOU CAN SCROLL THROUGH THE LIST OR USE THE SELECTION BUTTONS BELOW TO NARROW YOUR SEARCH. TO SEE A CONTACT'S COMPLETE INFORMATION DETAILS SELECT "CLICK."

| | | | | | | | |
|-------------------|--|-------------------|--|---------|--|--------------|--|
| LAST NAMES A-K | | LAST NAMES L-Z | | NUMBERS | | E-MAIL LISTS | |
|-------------------|--|-------------------|--|---------|--|--------------|--|

SELECT RECIPIENTS

1110

1115

1120

| | | | | |
|-------------------------------------|-------------------------------------|---------------|--------------------|---------|
| TO: | CC: | NAME | E-MAIL ADDRESS | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | BACH, JOHANN | BACHMAN@AOL.COM | DETAILS |
| <input type="checkbox"/> | <input type="checkbox"/> | BAER, MAX | MAX@BELLSOUTH.NET | DETAILS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | BALDWIN, ALEC | BALD@EARTHLINK.NET | DETAILS |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | BALDWIN, KIM | KIM@BELLSOUTH.NET | DETAILS |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | BEST, PETE | BEST@HOTMAIL.COM | DETAILS |
| <input type="checkbox"/> | <input type="checkbox"/> | BUNDY, AL | BUNDY@EXCITE.COM | DETAILS |
| <input type="checkbox"/> | <input type="checkbox"/> | BUNDY, PEG | PEGGY@AOL.COM | DETAILS |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CARTER, JIMMY | PEANUT@GO.COM | DETAILS |

305

| | | | | | |
|---------------|---------------------|-------------------------|----------------|--------------|----------------|
| WRITE 1125 | NEW CONTACT 1130 | NEW E-MAIL LIST 1135 | DELETE 1140 | EDIT 1145 | CANCEL 1150 |
|---------------|---------------------|-------------------------|----------------|--------------|----------------|

1155

404

FIG. 11

| ADD NEW CONTACT | | | /? - + X |
|---|---------------------------------------|---|--|
| CONTACT NAME | | | |
| LAST | <input type="text" value="HOWARD"/> | FIRST | <input type="text" value="CURLY"/> M.I. <input type="text" value="Q"/> 1260 |
| E-MAIL | | INSTANT MESSAGING (IM) | |
| <input type="text" value="CURLY@BELLSOUTH.NET"/> <input type="button" value="WORK"/> ▼ | | ENTER IM ADDRESS(ES) HERE, TO CHAT FROM "READ" WINDOW | |
| <input type="text" value="WISEGUY@STOOGES.NET"/> <input type="button" value="HOME"/> ▼ | | <input type="text" value="CURLY2002"/> <input type="text" value="BELLSOUTH"/> | |
| 1265 | | <input type="text" value="STOOGES1935"/> <input type="text" value="AOL"/> ▼ | |
| E-MAIL LIST(S) | | <input type="text" value="THECURLYMAN"/> <input type="text" value="HOTMAIL"/> ▼ | |
| <input type="text" value="STOOGES GROUP"/> <input type="button" value="EDIT"/> | | <input type="text" value="WHYIOTTA"/> <input type="text" value="PASSPORT"/> ▼ | |
| 1270 | | 1280 | |
| PHONE NUMBER(S) 1275 | | | |
| <input type="text" value="770-555-6789"/> | <input type="button" value="WORK"/> ▼ | STREET ADDRESS | |
| <input type="text" value="404-555-1234"/> | <input type="button" value="HOME"/> ▼ | <input type="text" value="1313 MOCKINGBIRD LN."/> LINE 1 | |
| <input type="text" value="678-555-5432"/> | <input type="button" value="CELL"/> ▼ | <input type="text" value="SUITE 1234"/> LINE 2 | |
| | | <input type="text" value="ATLANTA"/> CITY <input type="text" value="GA"/> STATE | |
| | | <input type="text" value="30338"/> ZIP 1285 | |
| DESCRIPTION | | | |
| CURLY HAS TWO BROTHERS, MOE AND SHEMP. SHEMP IS NOT TOO FUNNY. HIS BIRTHDAY IS IN AUGUST. DO NOT LEAVE HIM IN CHARGE. 1290 | | | |
| 1295 | | | |
| 1235 | | | |

FIG. 12

110
ADDRESS
BOOK
DATABASE

| 110 ADDRESS BOOK DATABASE | | | | |
|---|--------------------------------|-----------------------------|--------------------------|--------------------------|
| <div>1310</div> <div>1320</div> <div>1330</div> <div>1340</div> <div>1350</div> | | | | |
| ID | EMAIL ADDRESS | IM ADDRESS 1 | IM ADDRESS 2 | IM ADDRESS 3 |
| C1 ID | C1 EMAIL ADDR. 1 | C1 IM ADDR. 1 | C1 ADDR. 2 | C1 ADDR. 3 |
| C2 ID | C2 EMAIL ADDR. 1 | C2 IM ADDR. 1 | | |
| C3 ID | | C3 IM ADDR. 1 | C3 ADDR. 2 | C3 ADDR. 3 |
| C4 ID | C4 EMAIL ADDR. 1 | C4 IM ADDR. 1 | C4 ADDR. 2 | |
| C5 ID | C5 EMAIL ADDR. 1 | | | |
| C6 ID | | | | |
| . | . | . | . | . |
| . | . | . | . | . |
| . | . | . | . | . |
| C _{I-1} ID | C _{I-1} EMAIL ADDR. 1 | | | |
| C _I ID | C _I EMAIL ADDR. 1 | C _I IM ADDR. 1 | | |
| C _{I+1} ID | C _{I+1} EMAIL ADDR. 1 | C _{I+1} IM ADDR. 1 | | |
| . | . | . | . | . |
| . | . | . | . | . |
| . | . | . | . | . |
| C _{N-2} ID | | C _{N-2} IM ADDR. 1 | C _{N-2} ADDR. 2 | C _{N-2} ADDR. 3 |
| C _{N-1} ID | C _{N-1} EMAIL ADDR. 1 | C _{N-1} IM ADDR. 1 | C _{N-1} ADDR. 2 | C _{N-1} ADDR. 3 |
| C _N ID | C _N EMAIL ADDR. 1 | C _N IM ADDR. 1 | C _N ADDR. 2 | C _N ADDR. 3 |

FIG. 13A

110
ADDRESS
BOOK
DATABASE

| 110 ADDRESS BOOK DATABASE (XML-STRUCTURED DATABASE) | | | | |
|---|--------------------------------|-----------------------------|--------------------------|--------------------------|
| <div>1310</div> <div>1320</div> <div>1330</div> <div>1340</div> <div>1350</div> | | | | |
| ID | EMAIL ADDRESS | IM ADDRESS 1 | PHONE NO. | FAX NUMBER |
| C1 ID | C1 EMAIL ADDR. 1 | C1 IM ADDR. 1 | C1 PH. NO. | C1 FAX NO. |
| C2 ID | C2 EMAIL ADDR. 1 | C2 IM ADDR. 1 | | |
| C3 ID | | C3 IM ADDR. 1 | C3 PH. NO. | C3 FAX NO. |
| C4 ID | C4 EMAIL ADDR. 1 | C4 IM ADDR. 1 | C4 PH. NO. | |
| C5 ID | C5 EMAIL ADDR. 1 | | C5 PH. NO. | C5 FAX NO. |
| C6 ID | | | C6 PH. NO. | C6 FAX NO. |
| . | . | . | . | . |
| C _{I-1} ID | C _{I-1} EMAIL ADDR. 1 | | C _{I-1} PH. NO. | C _{I-1} FAX NO. |
| C _I ID | C _I EMAIL ADDR. 1 | C _I IM ADDR. 1 | | |
| C _{I+1} ID | C _{I+1} EMAIL ADDR. 1 | C _{I+1} IM ADDR. 1 | | C _{I+1} FAX NO. |
| . | . | . | . | . |
| C _{N-2} ID | | C _{N-2} IM ADDR. 1 | C _{N-2} PH. NO. | C _{N-2} FAX NO. |
| C _{N-1} ID | C _{N-1} EMAIL ADDR. 1 | C _{N-1} IM ADDR. 1 | C _{N-1} PH. NO. | C _{N-1} FAX NO. |
| C _N ID | C _N EMAIL ADDR. 1 | C _N IM ADDR. 1 | C _N PH. NO. | C _N FAX NO. |

FIG. 13B

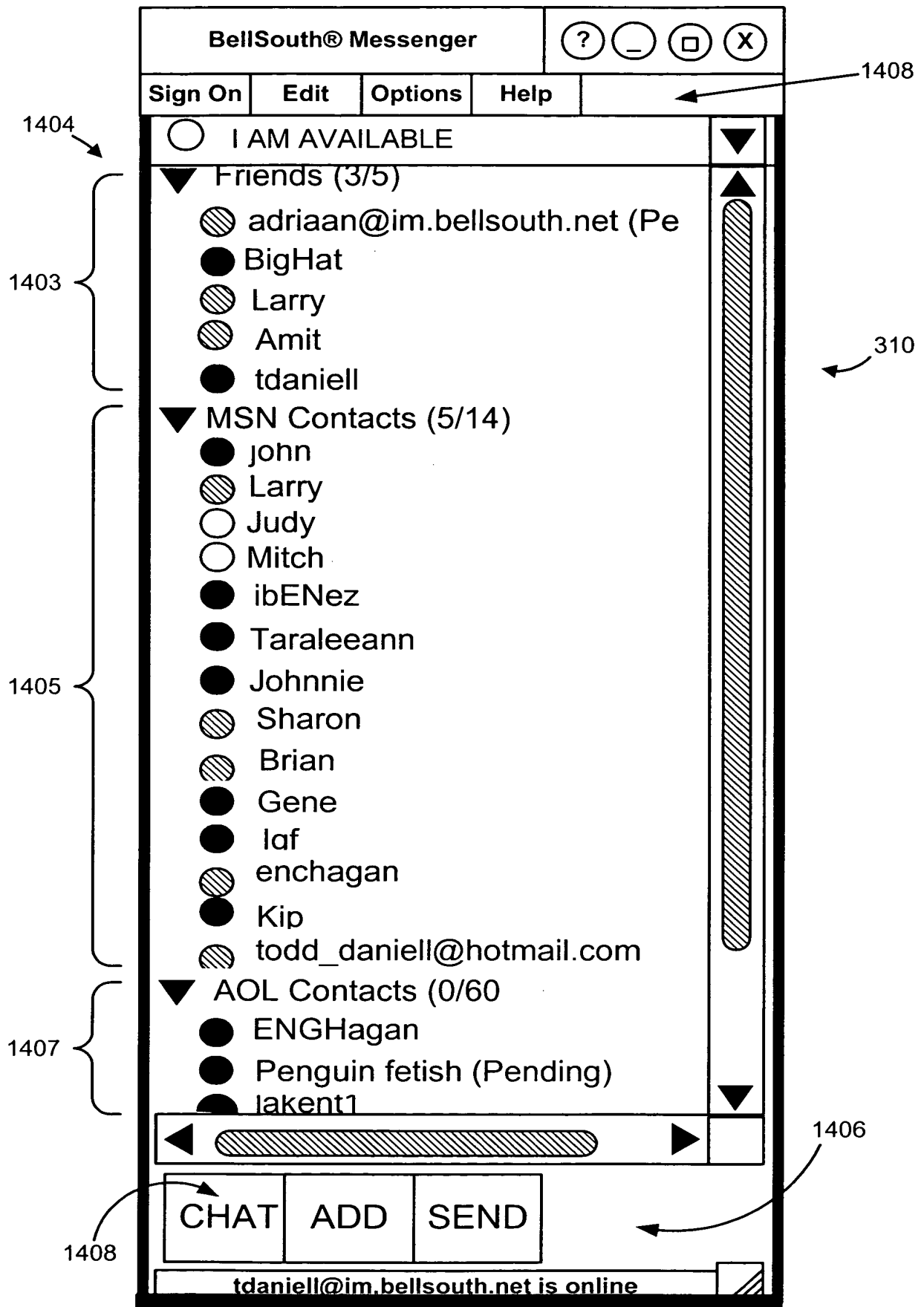


FIG. 14

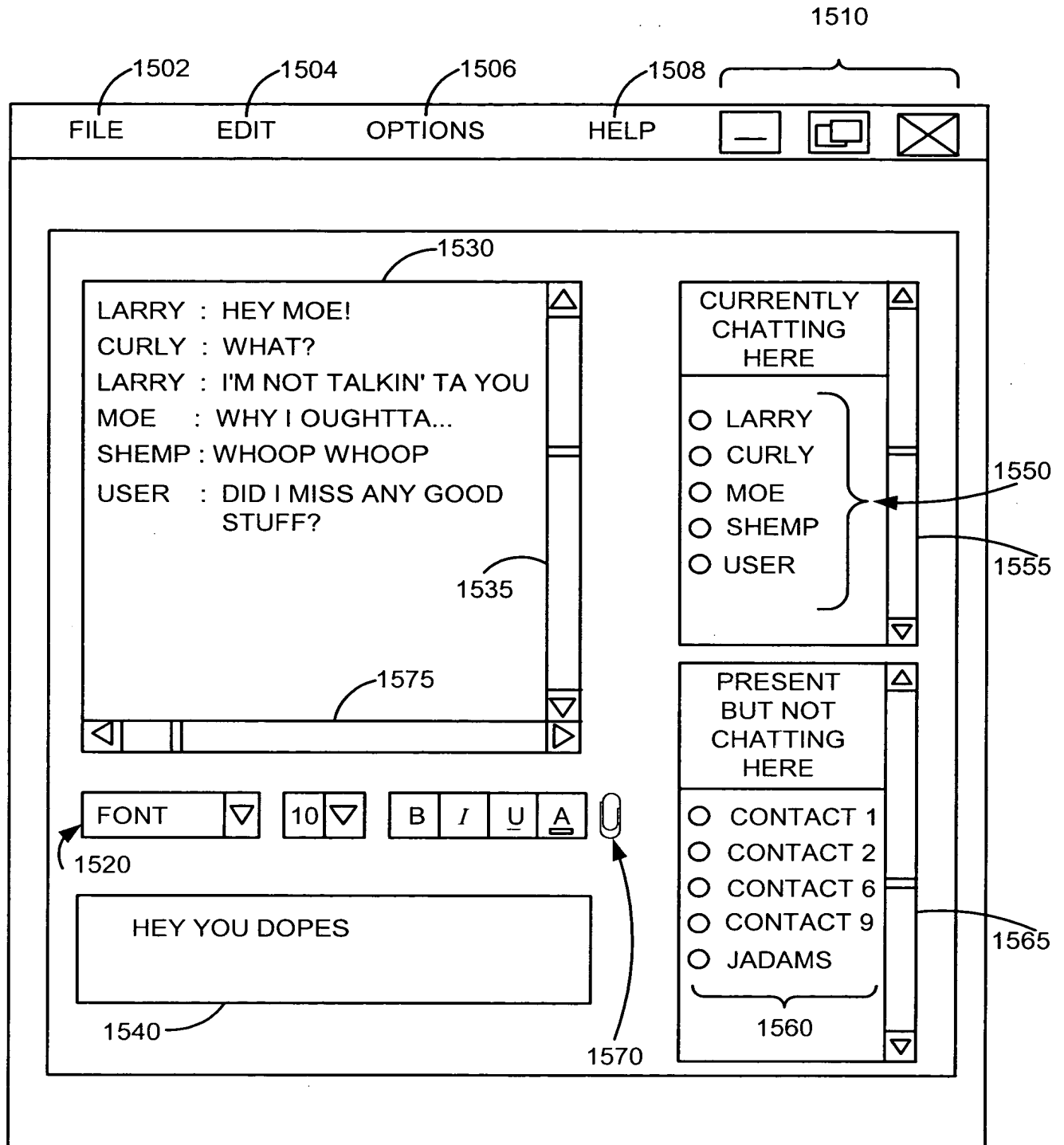


FIG. 15

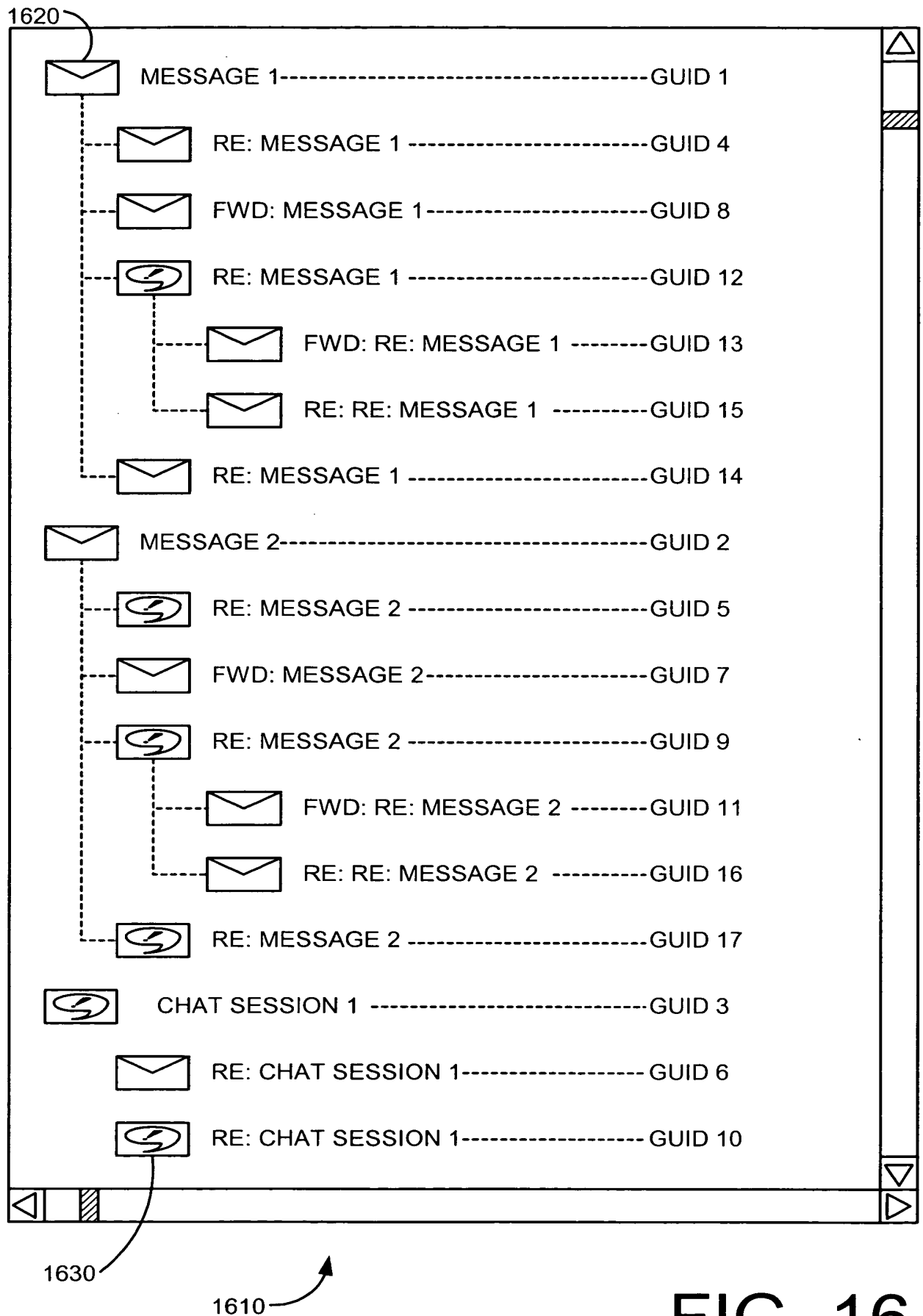


FIG. 16

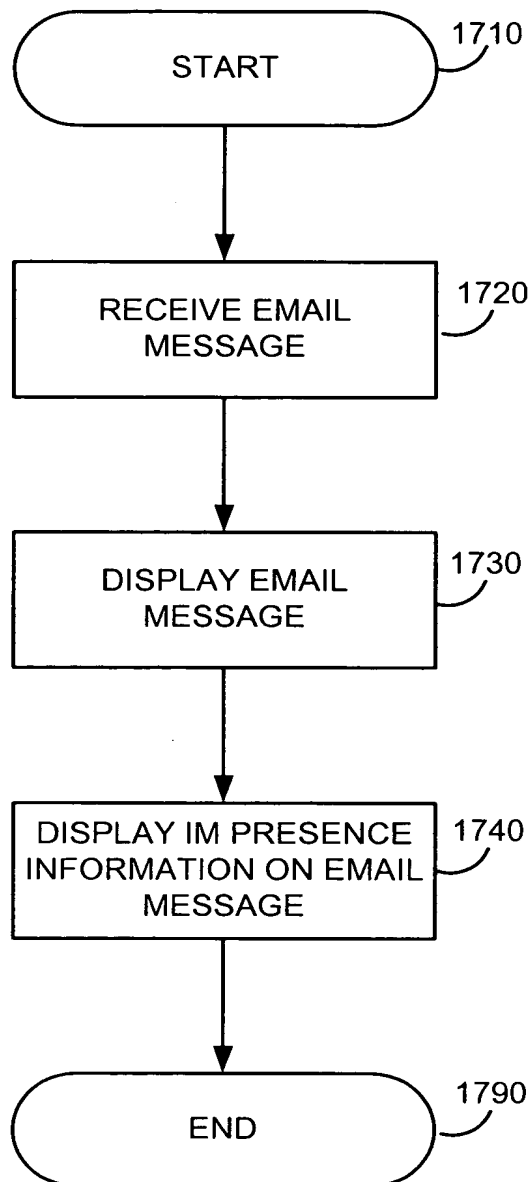


FIG. 17

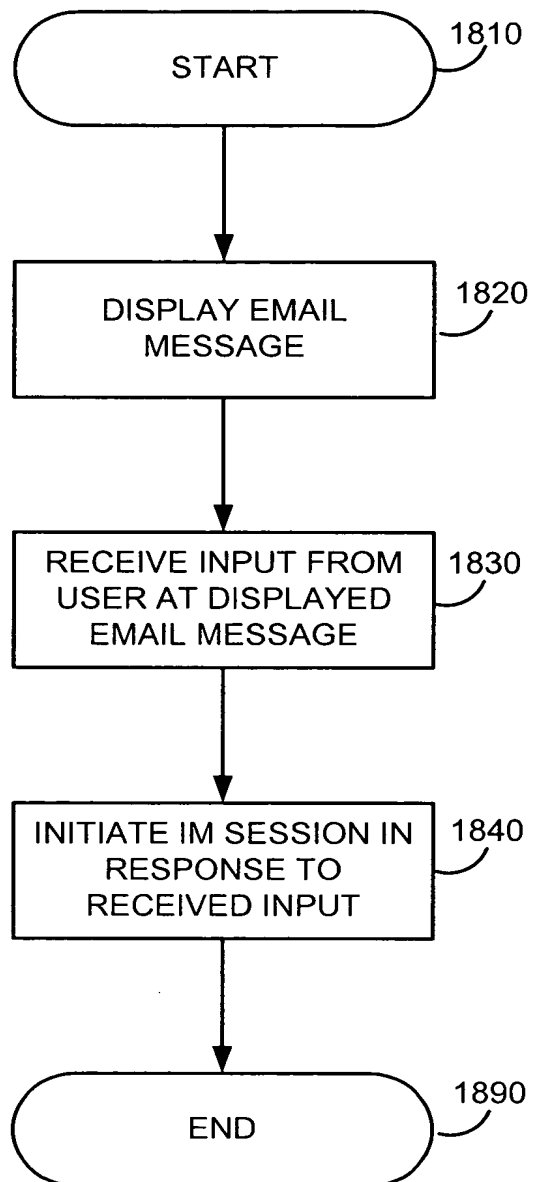


FIG. 18

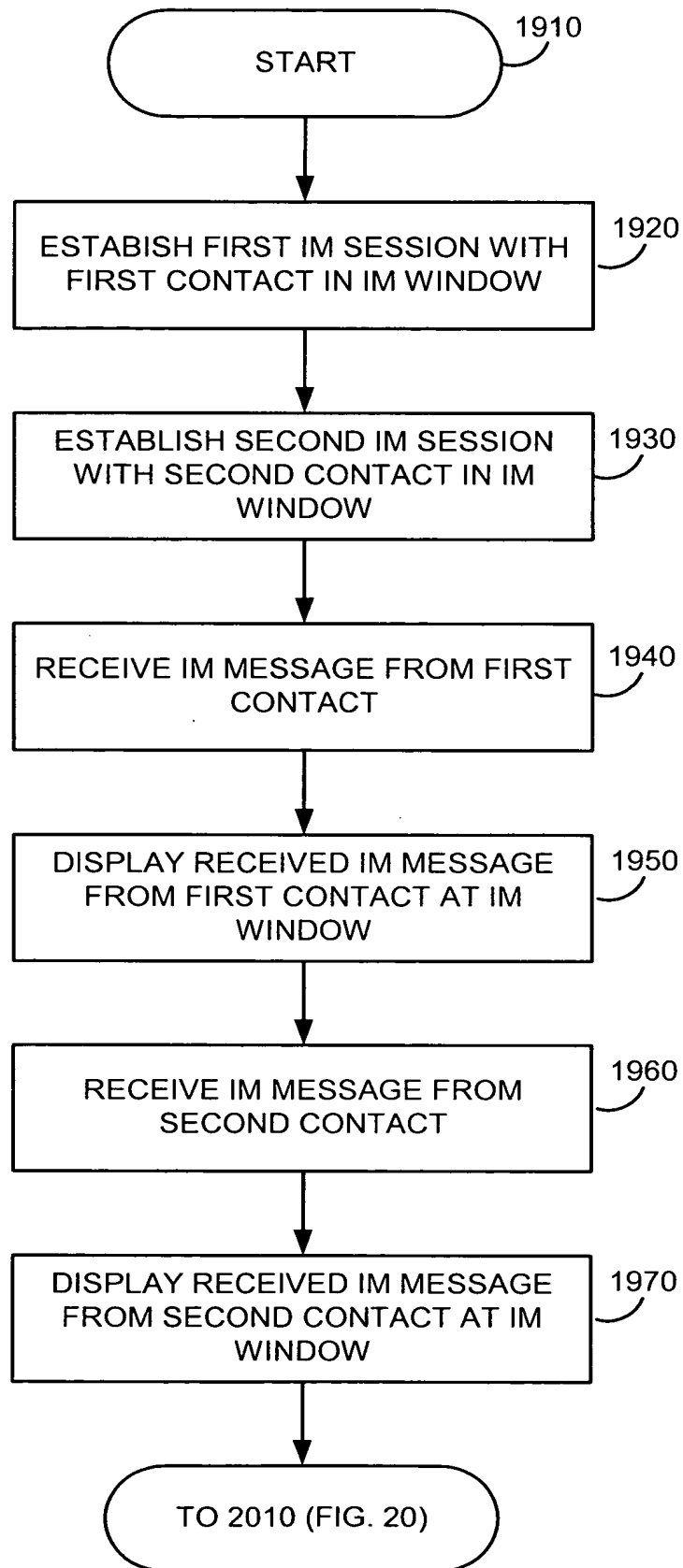


FIG. 19

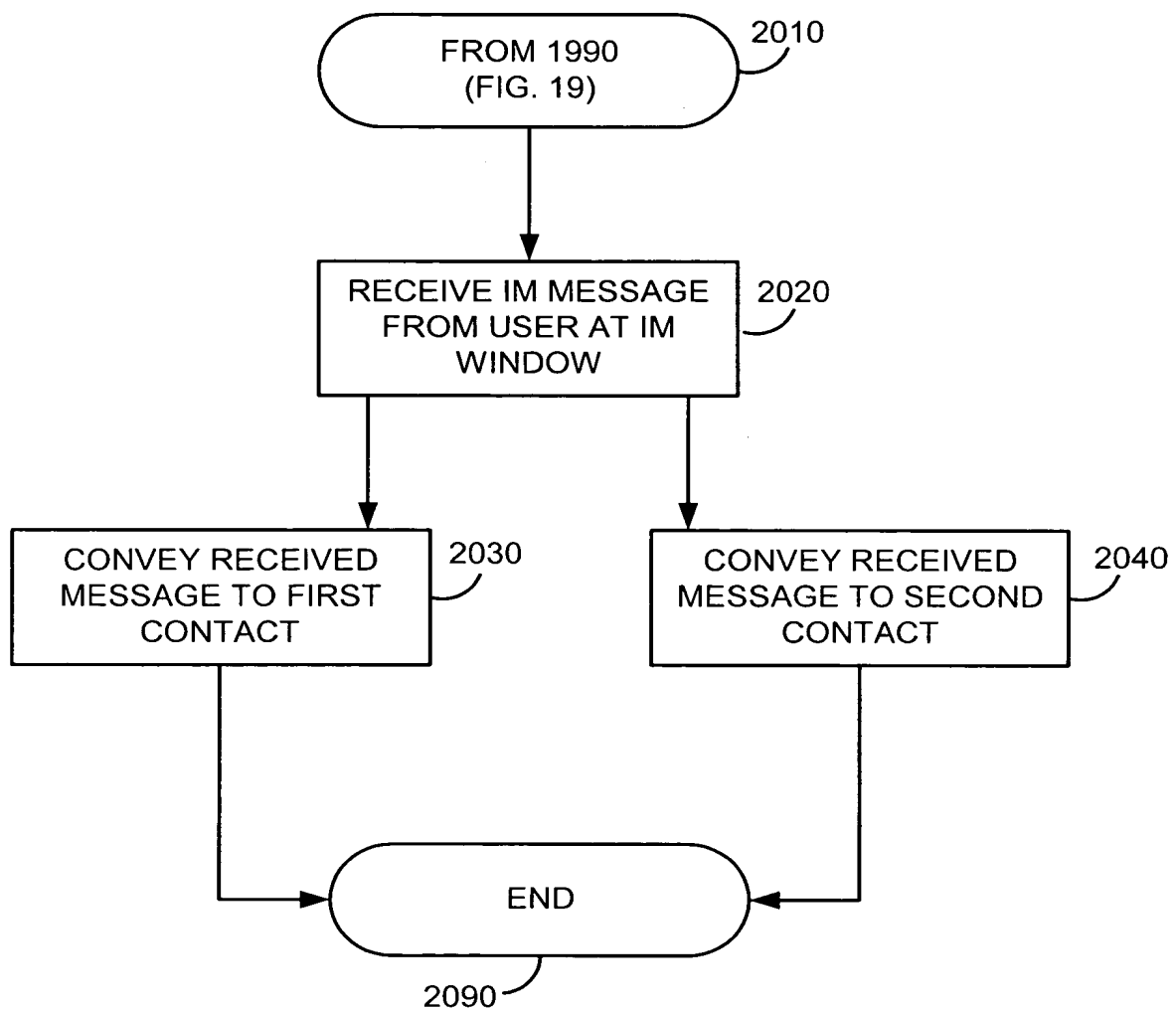


FIG. 20

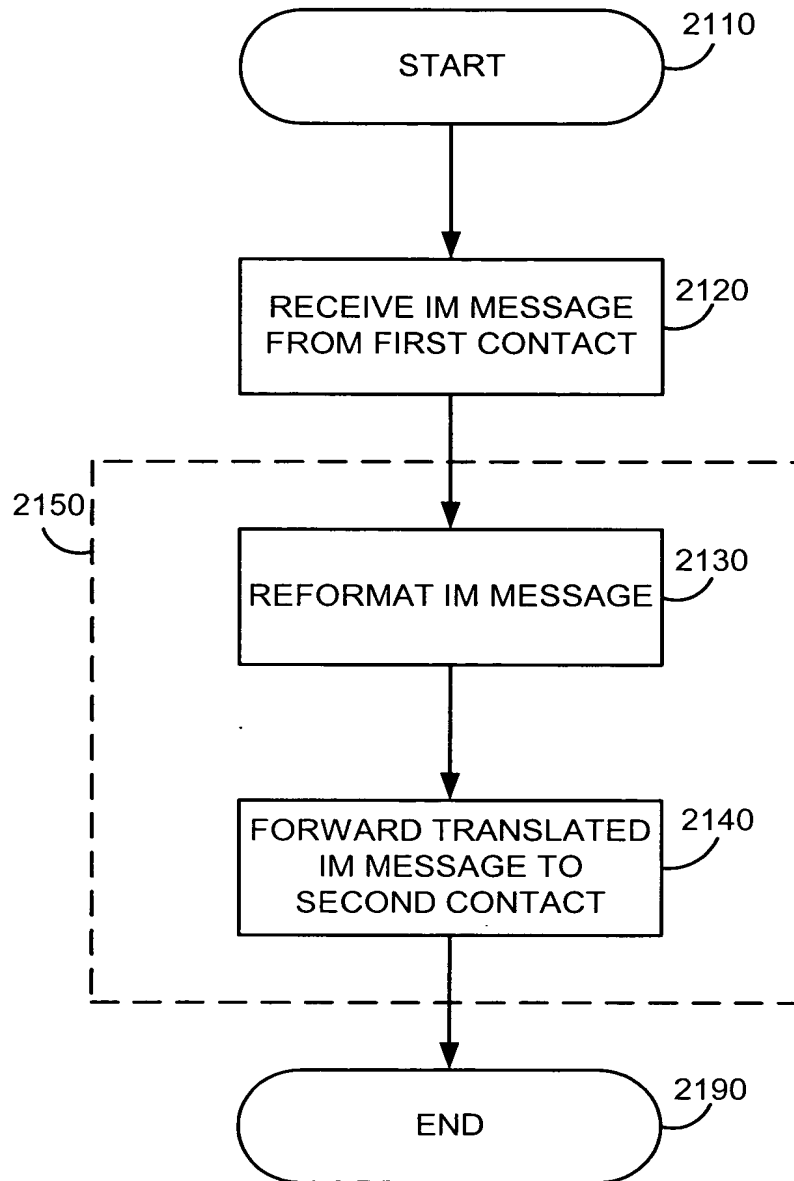


FIG. 21

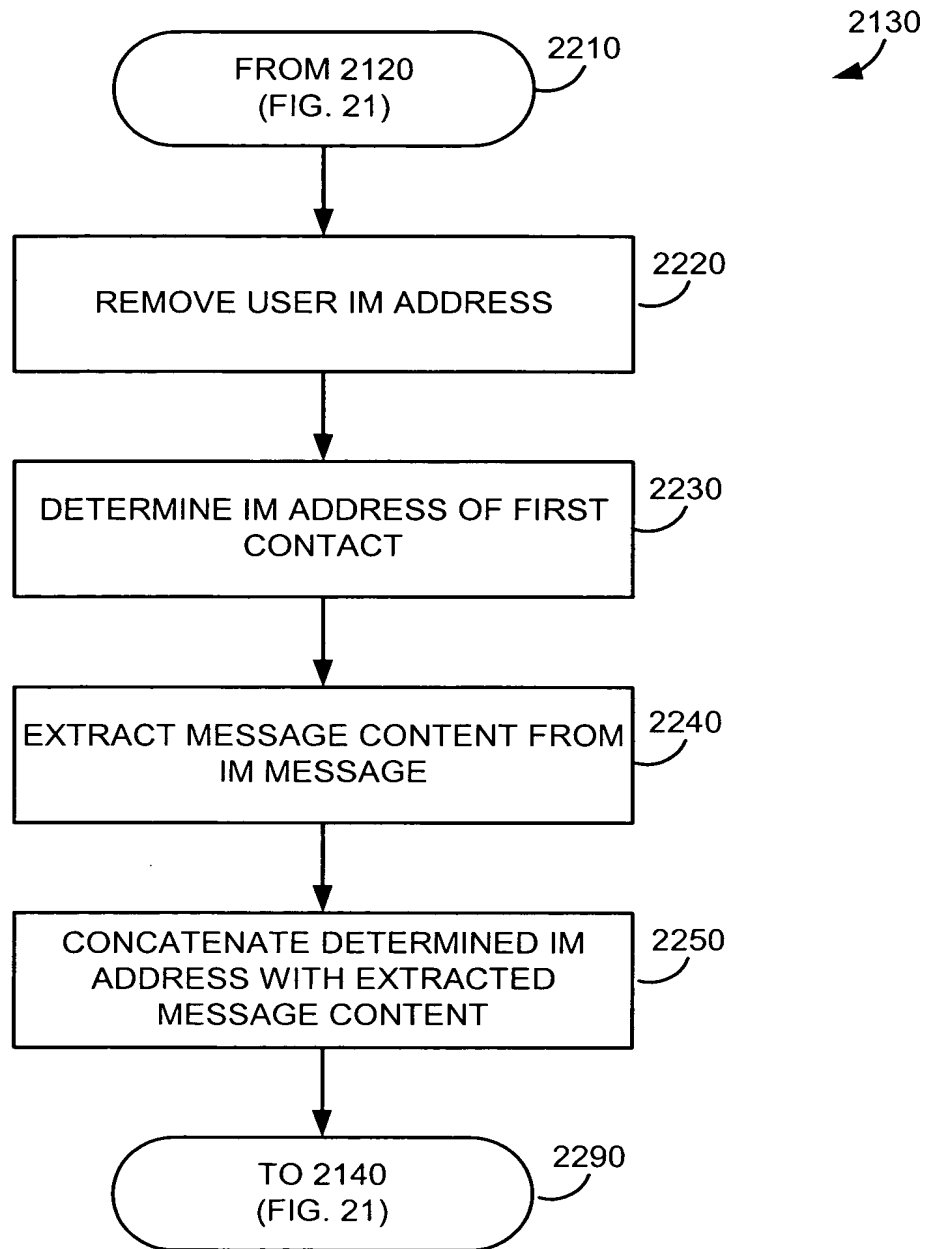


FIG. 22

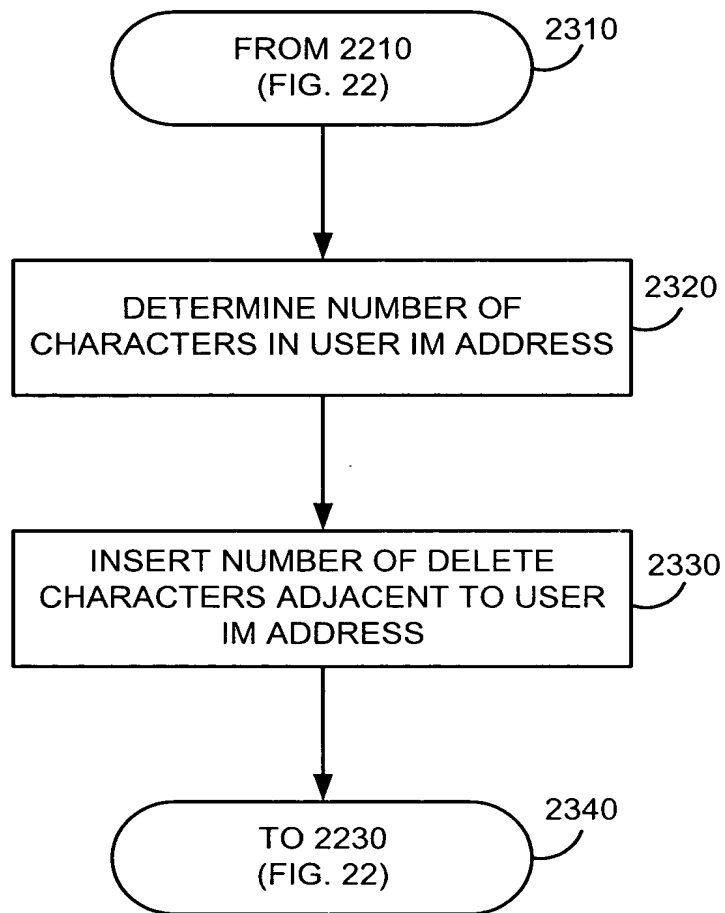


FIG. 23

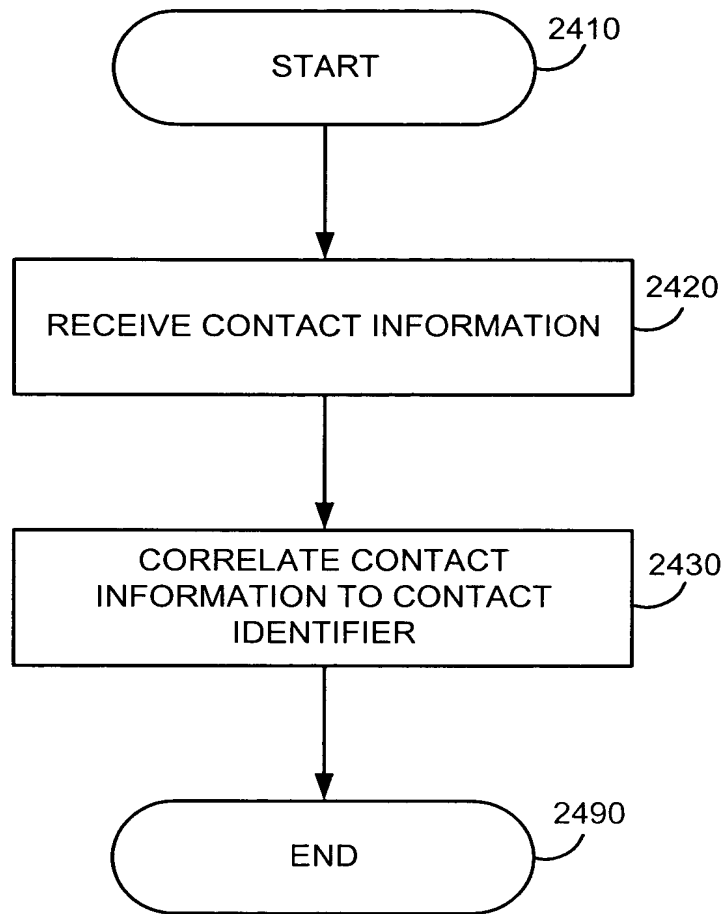


FIG. 24

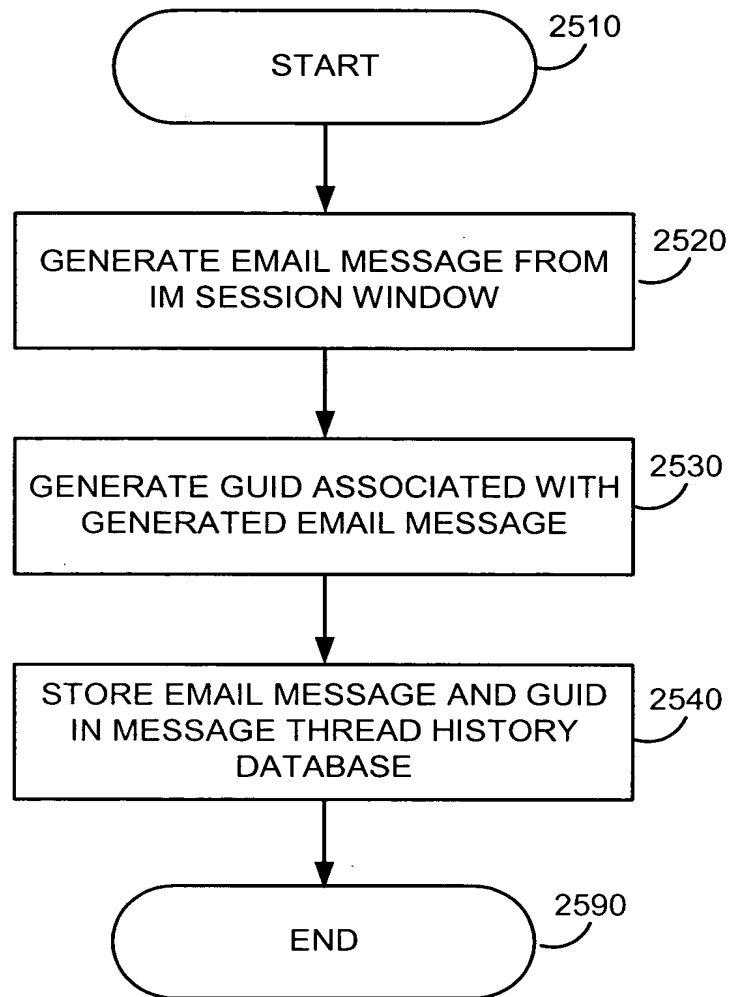


FIG. 25

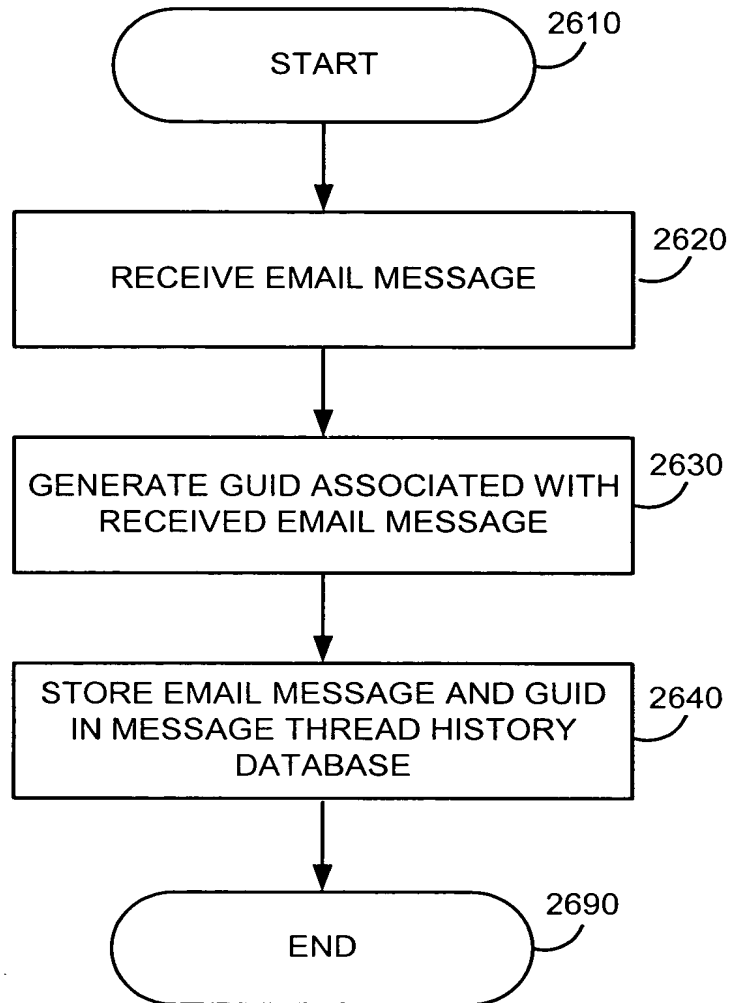


FIG. 26

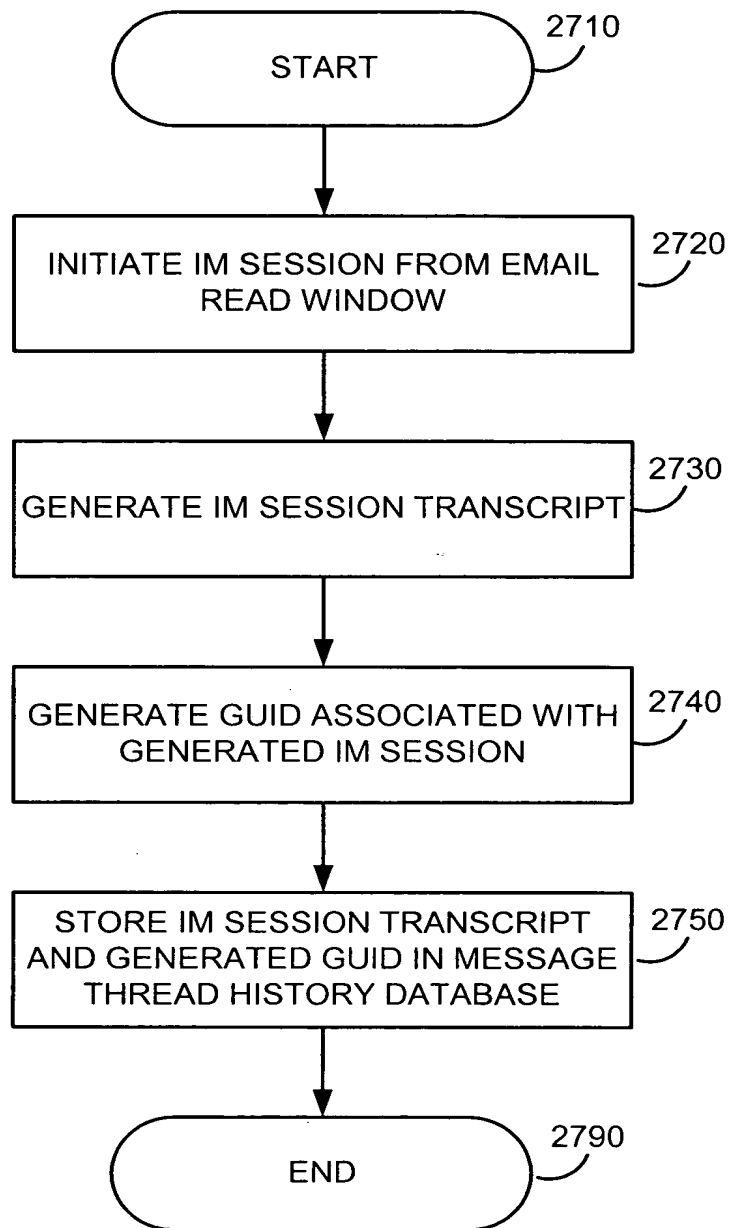


FIG. 27

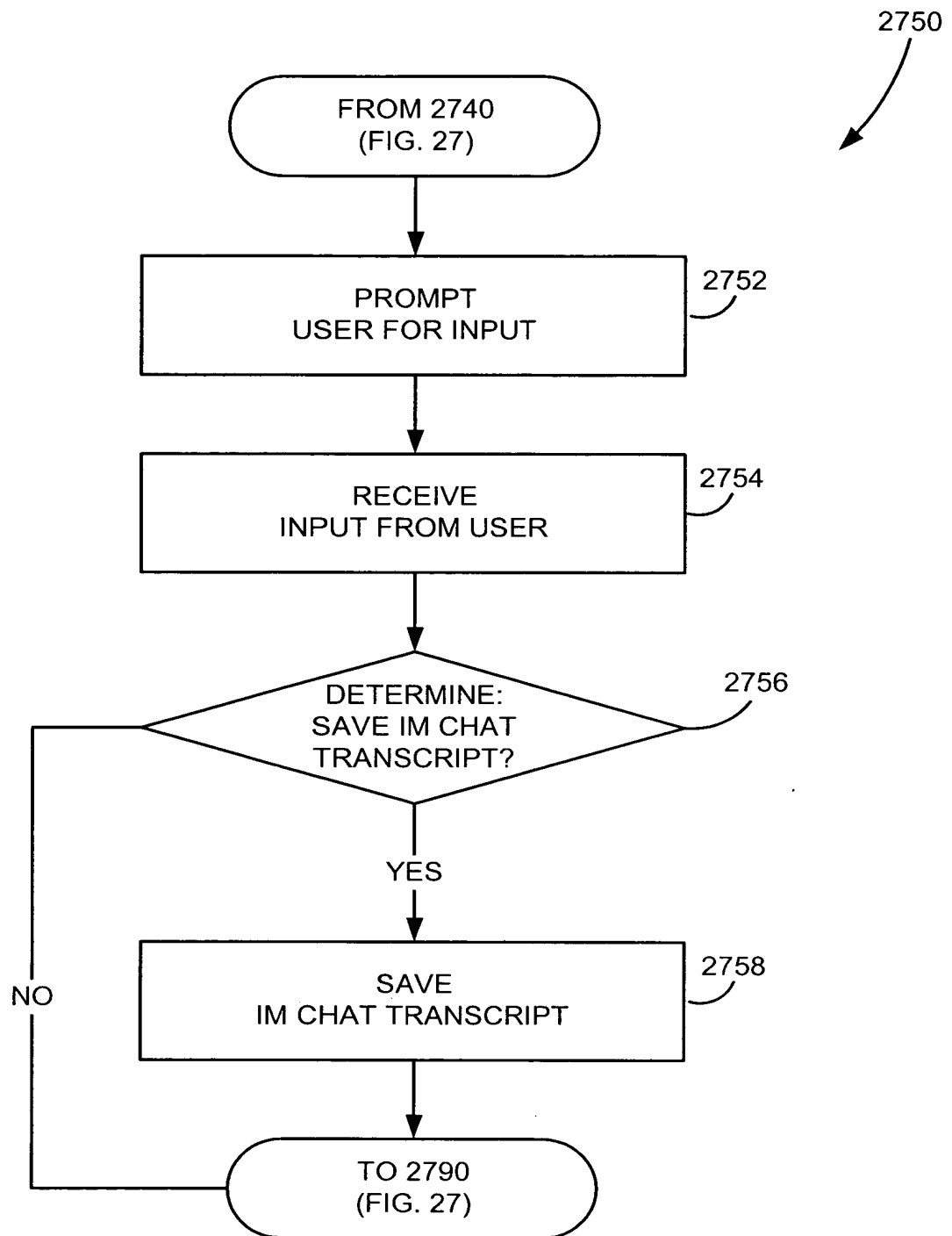


FIG. 27A

FIG. 28A

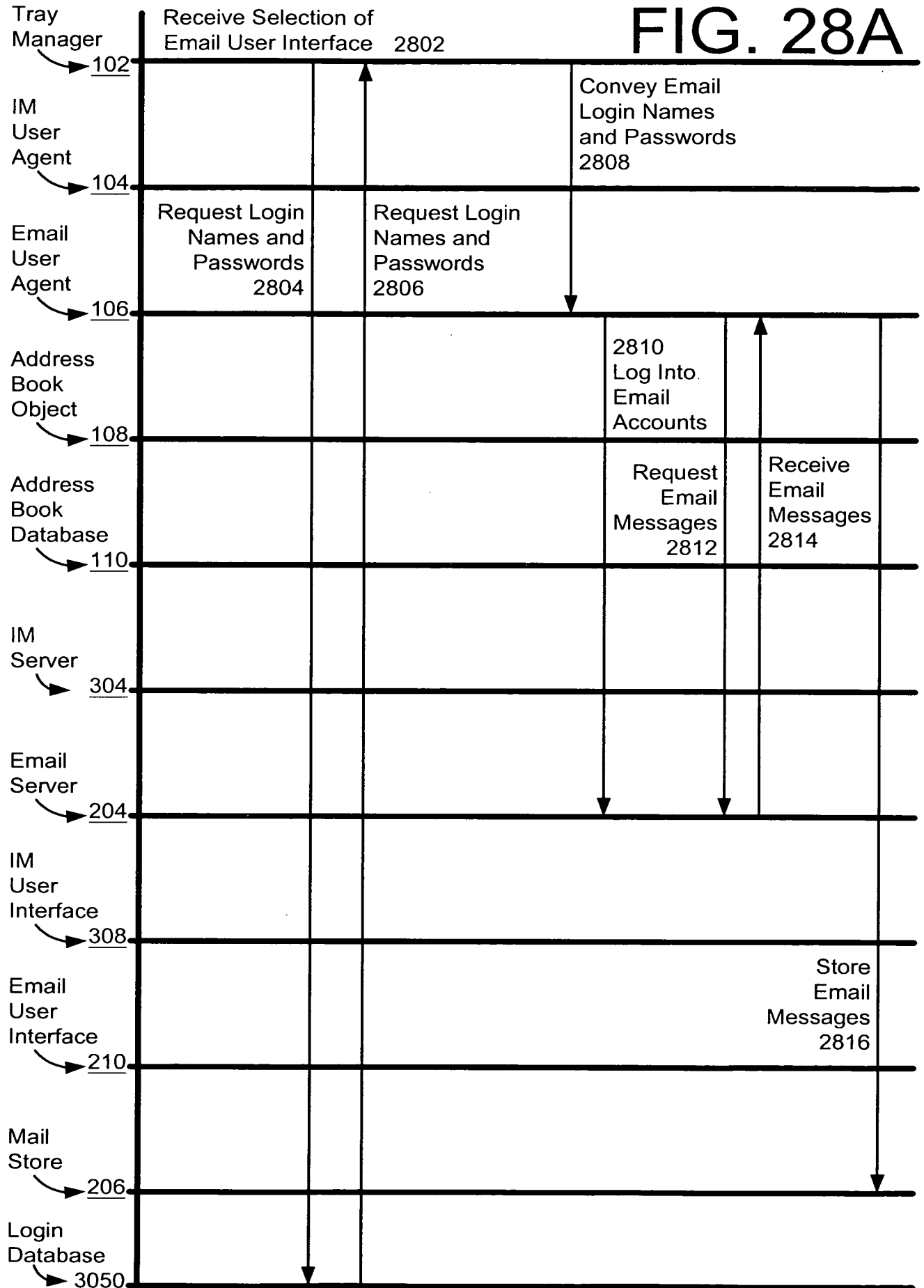


FIG. 28B

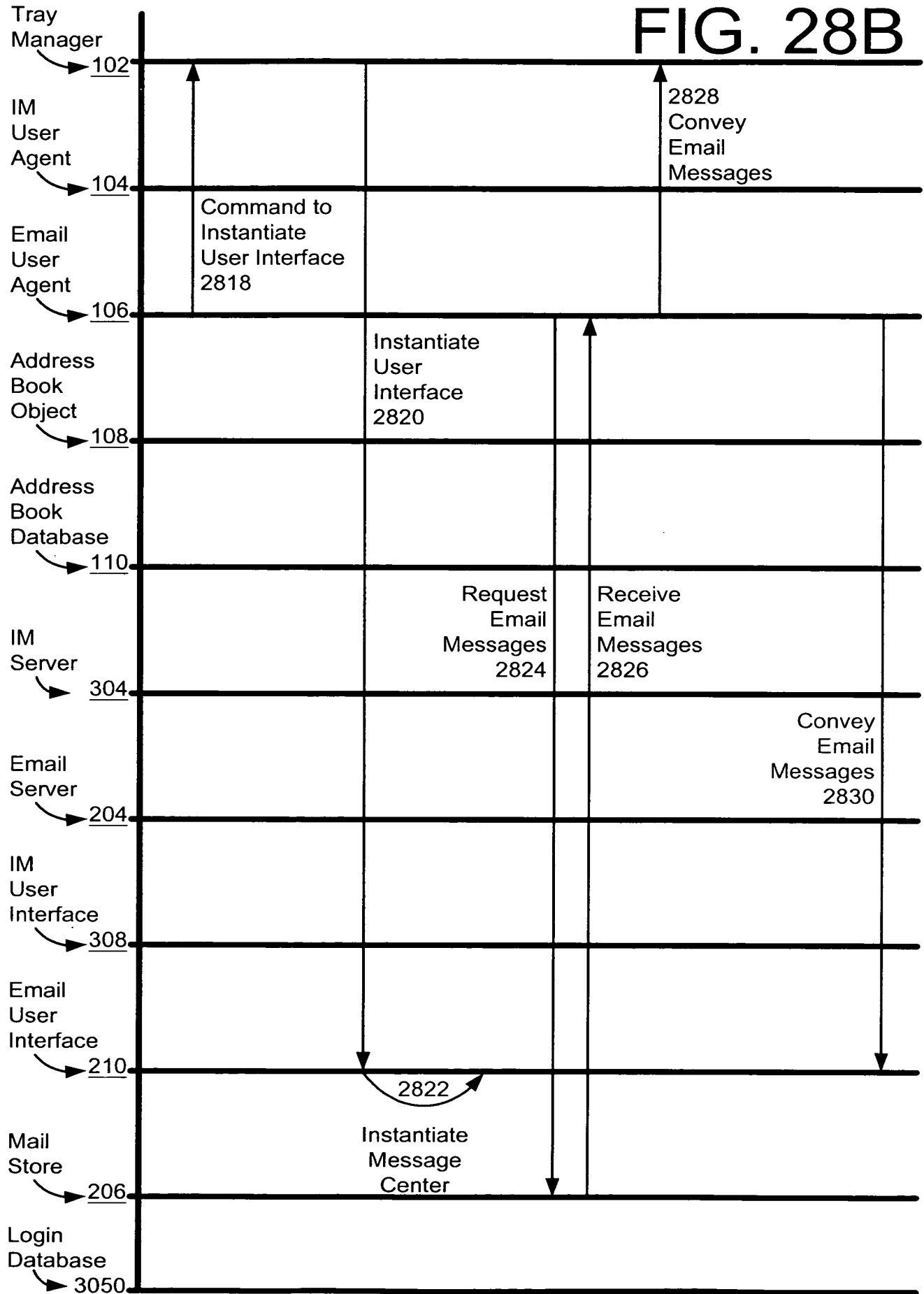


FIG. 28C

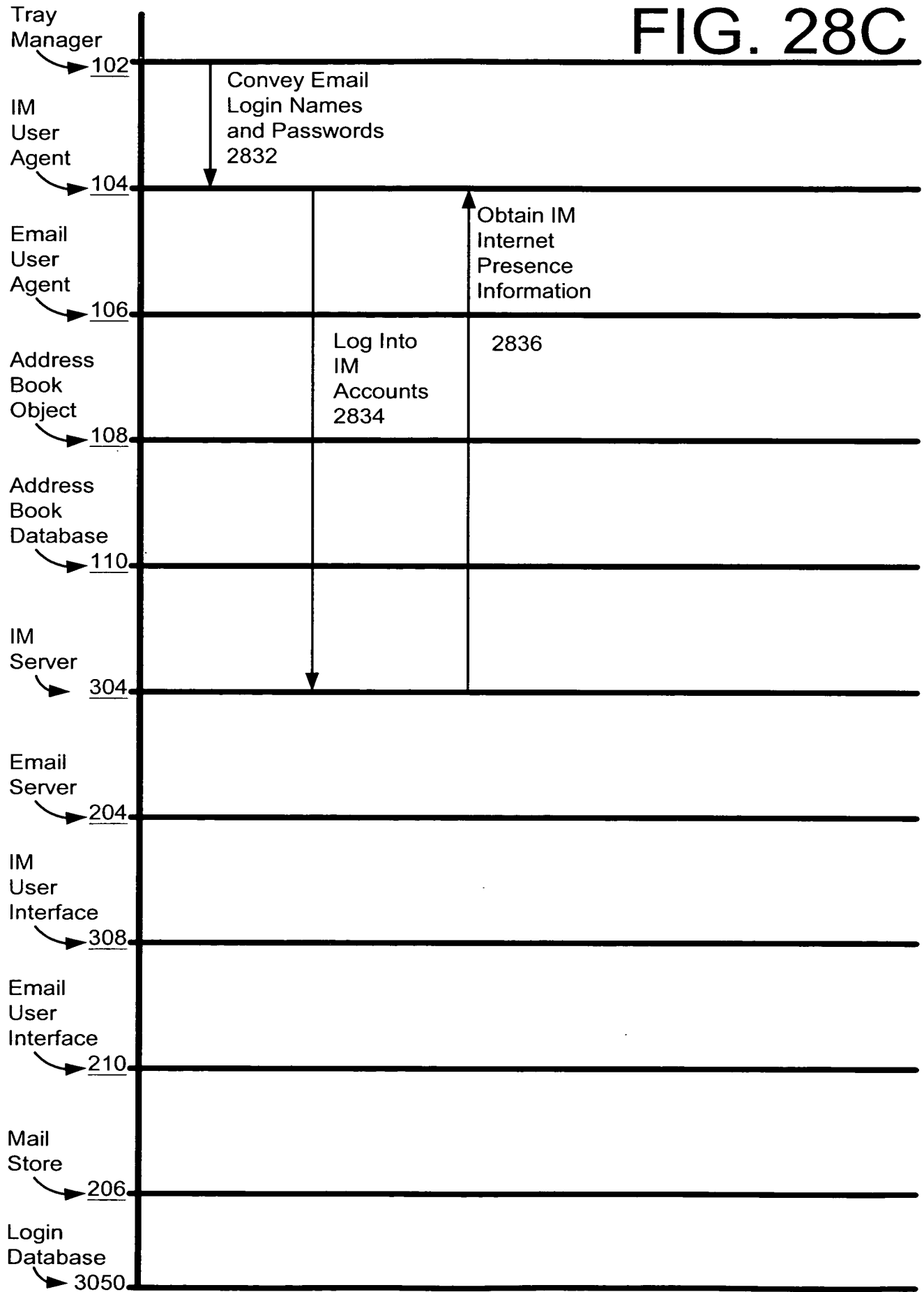


FIG. 29A

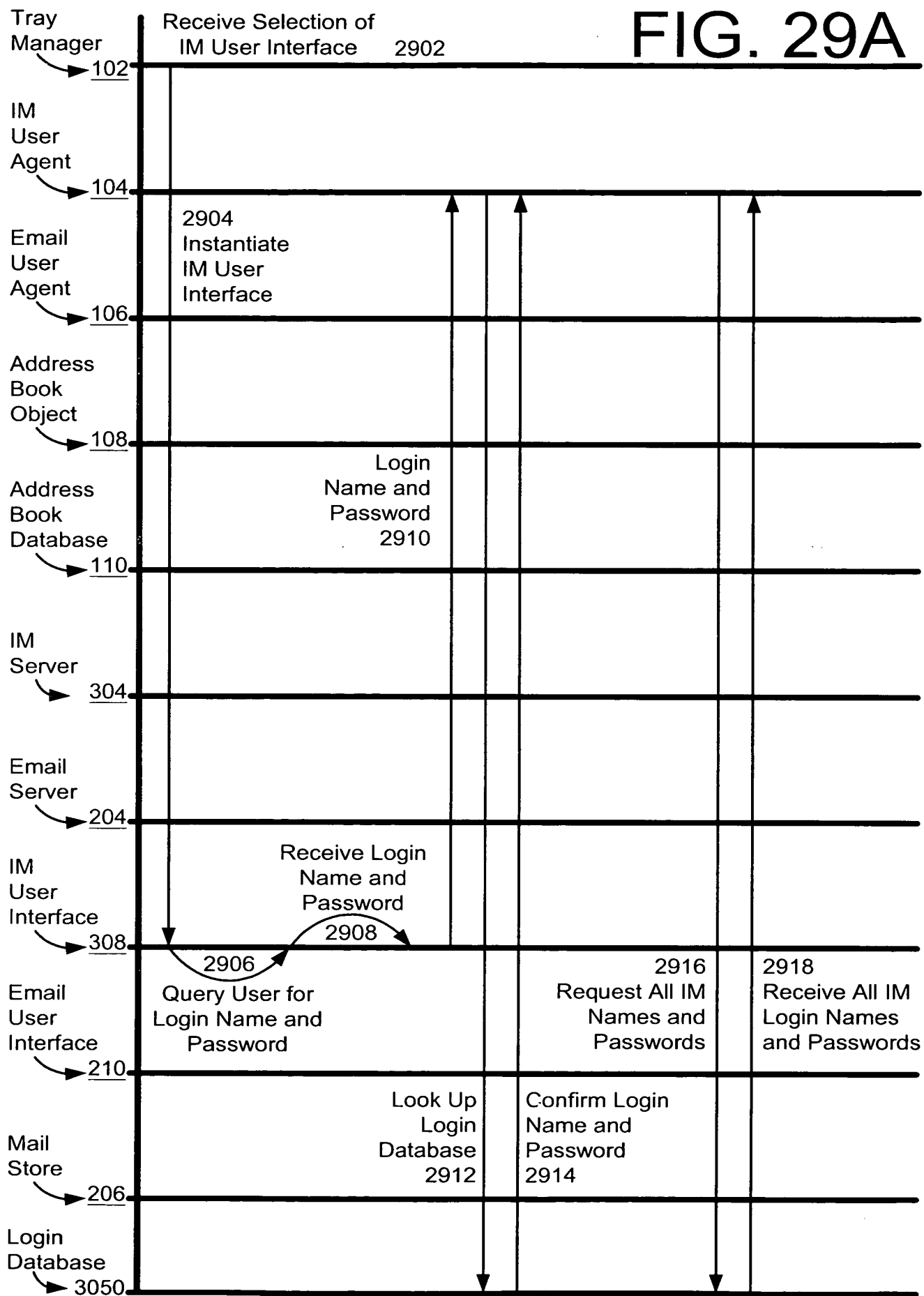


FIG. 29B

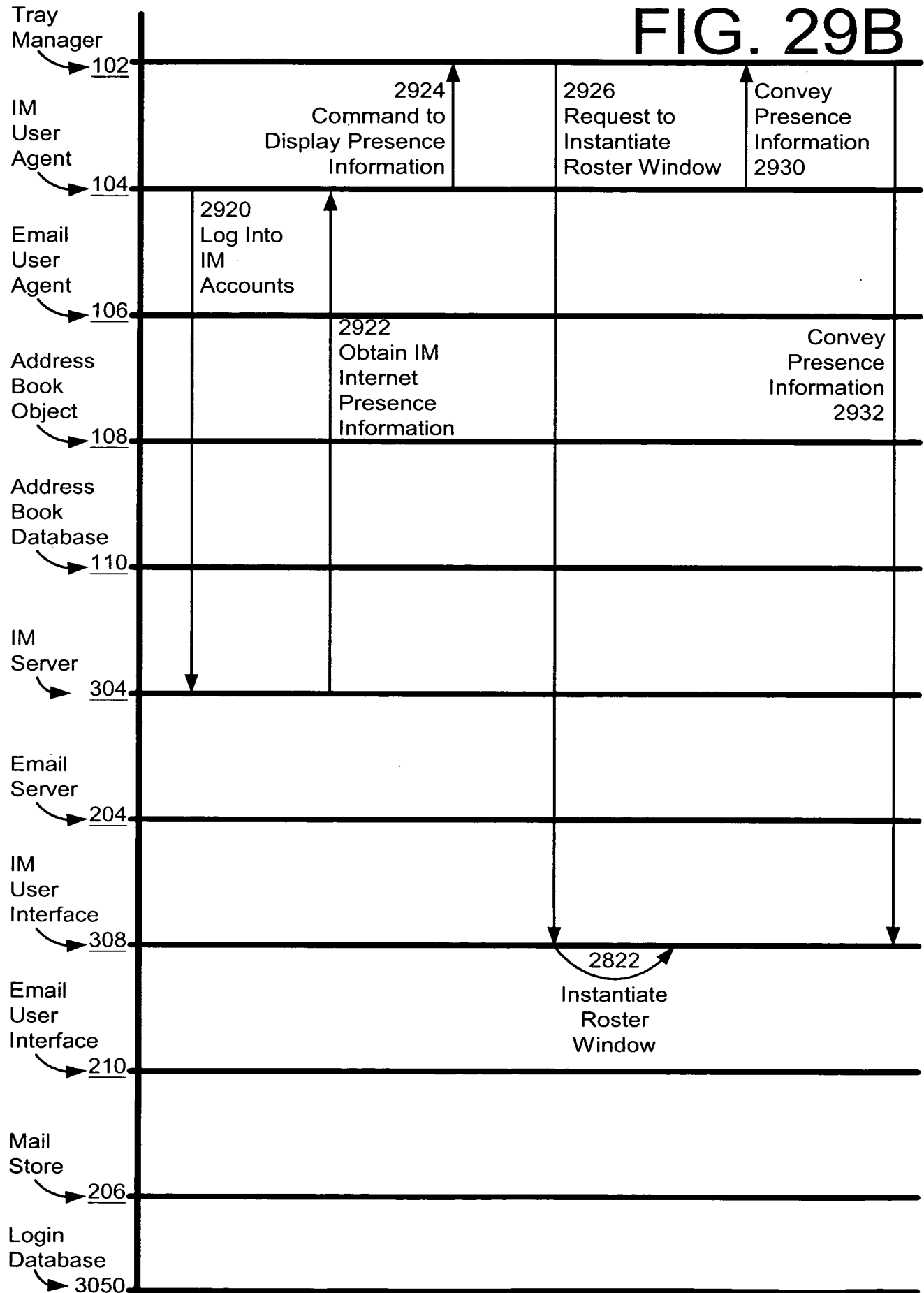


FIG. 29C

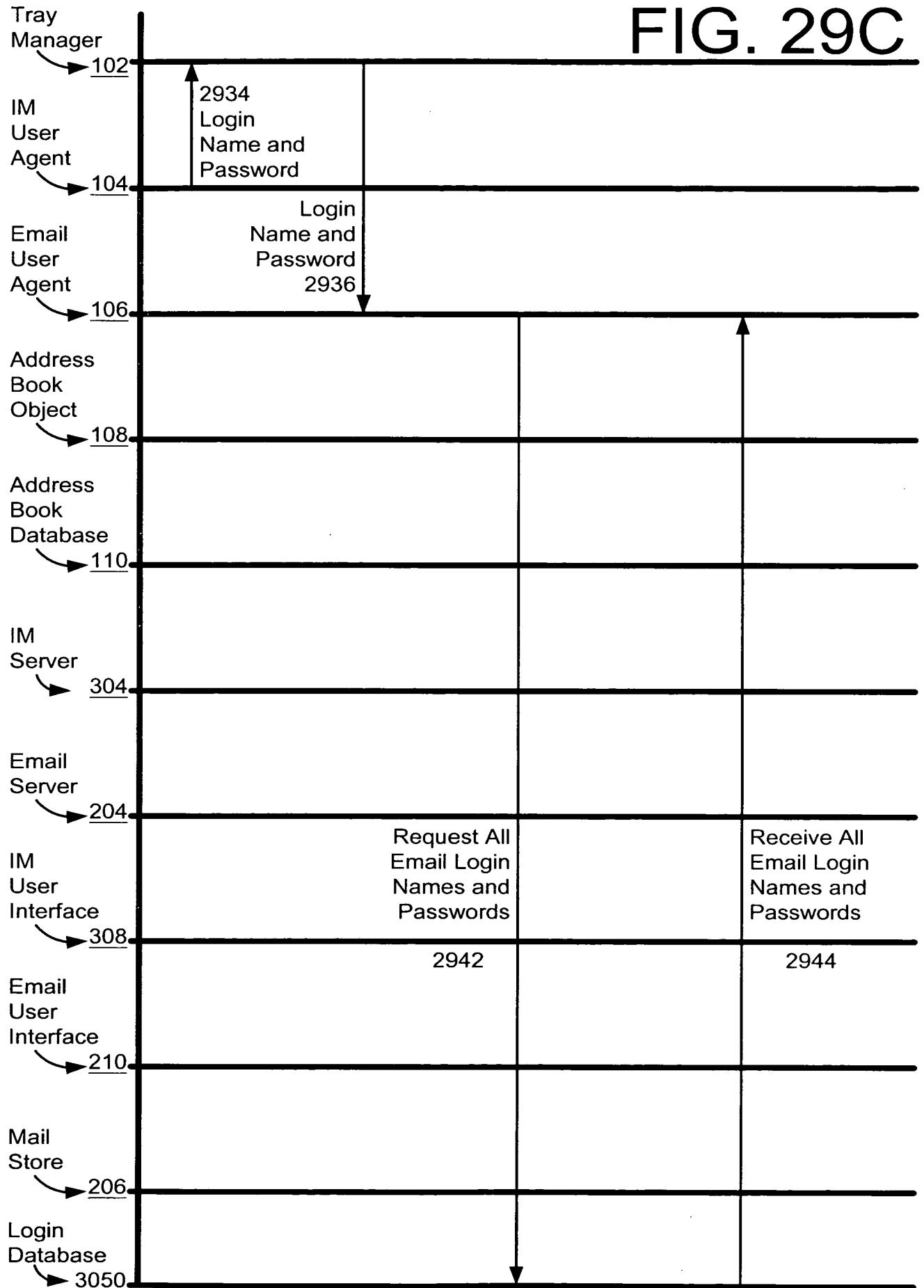
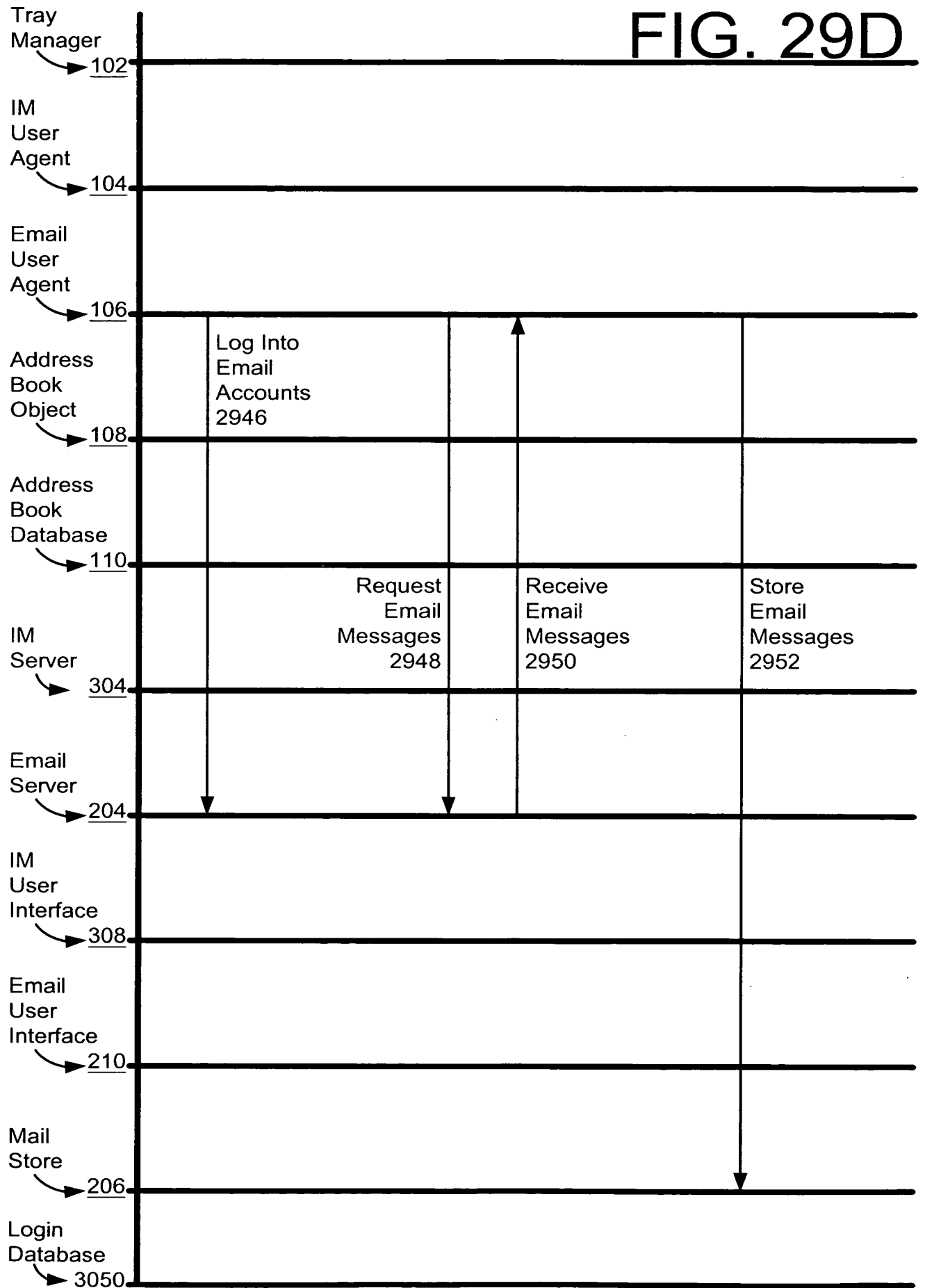


FIG. 29D

```
sequenceDiagram
    participant TM as Tray Manager 102
    participant IMUA as IM User Agent 104
    participant EUA as Email User Agent 106
    participant ABO as Address Book Object 108
    participant ABD as Address Book Database 110
    participant IS as IM Server 304
    participant ES as Email Server 204
    participant IMUI as IM User Interface 308
    participant EUI as Email User Interface 210
    participant MS as Mail Store 206
    participant LD as Login Database 3050

    TM->>IMUA
    IMUA->>EUA
    EUA->>ABO
    ABO->>ABD
    ABD->>IS
    IS->>ES
    ES->>IMUI
    IMUI->>EUI
    EUI->>MS
    MS->>LD
```

The diagram illustrates a sequence of interactions between various components. The components are listed on the left side of the diagram, each with a reference number: Tray Manager (102), IM User Agent (104), Email User Agent (106), Address Book Object (108), Address Book Database (110), IM Server (304), Email Server (204), IM User Interface (308), Email User Interface (210), Mail Store (206), and Login Database (3050). The interactions are as follows: 1. Tray Manager (102) sends a message to IM User Agent (104). 2. IM User Agent (104) sends a message to Email User Agent (106). 3. Email User Agent (106) sends a message to Address Book Object (108). 4. Address Book Object (108) sends a message to Address Book Database (110). 5. Address Book Database (110) sends a message to IM Server (304). 6. IM Server (304) sends a message to Email Server (204). 7. Email Server (204) sends a message to IM User Interface (308). 8. IM User Interface (308) sends a message to Email User Interface (210). 9. Email User Interface (210) sends a message to Mail Store (206). 10. Mail Store (206) sends a message to Login Database (3050). Additionally, there are specific messages within the sequence: 'Log Into Email Accounts 2946' is sent from Address Book Object (108) to Email User Agent (106). 'Request Email Messages 2948' is sent from IM Server (304) to Email Server (204). 'Receive Email Messages 2950' is sent from Email Server (204) to IM Server (304). 'Store Email Messages 2952' is sent from IM Server (304) to Email Server (204).



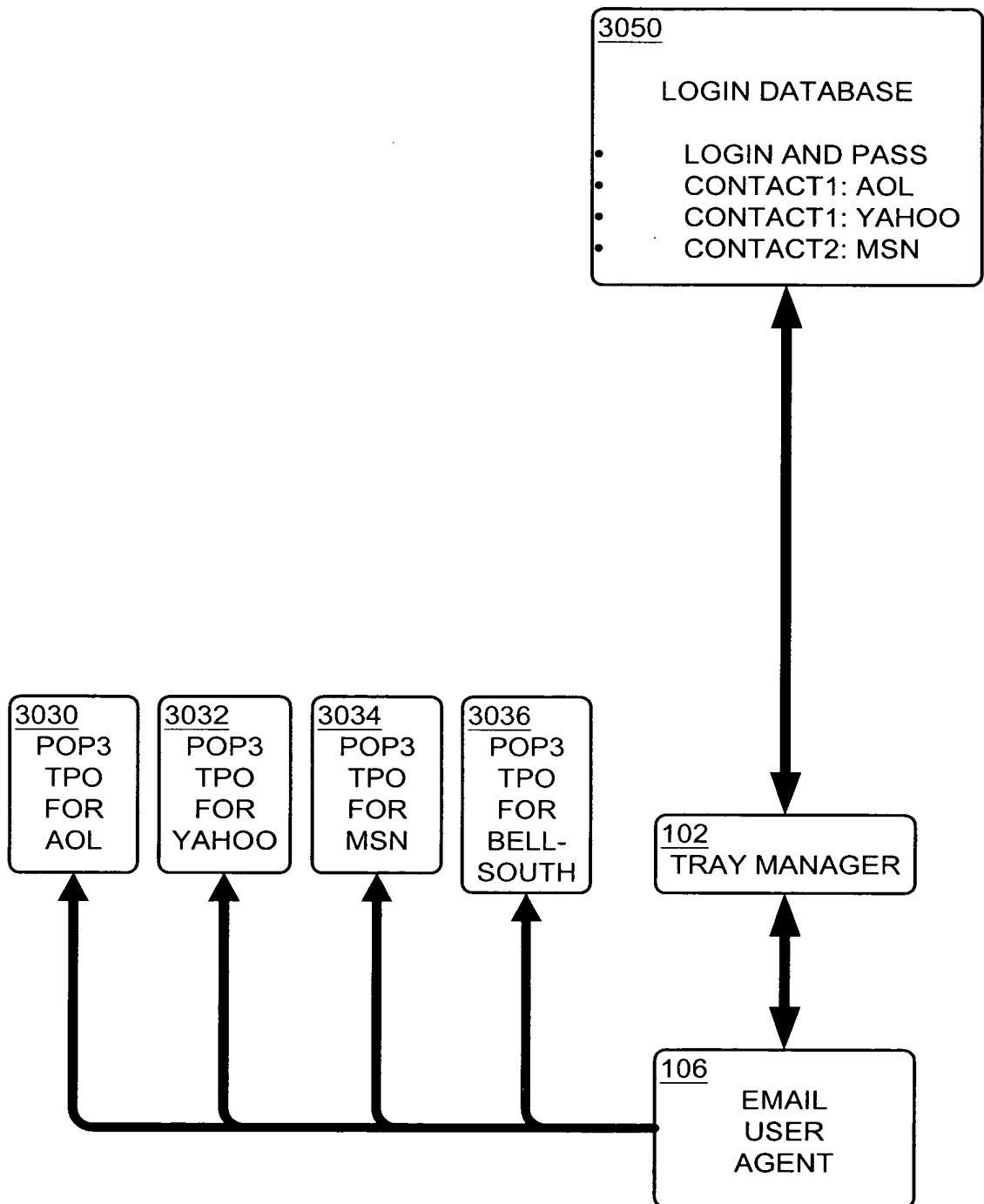


FIG. 30

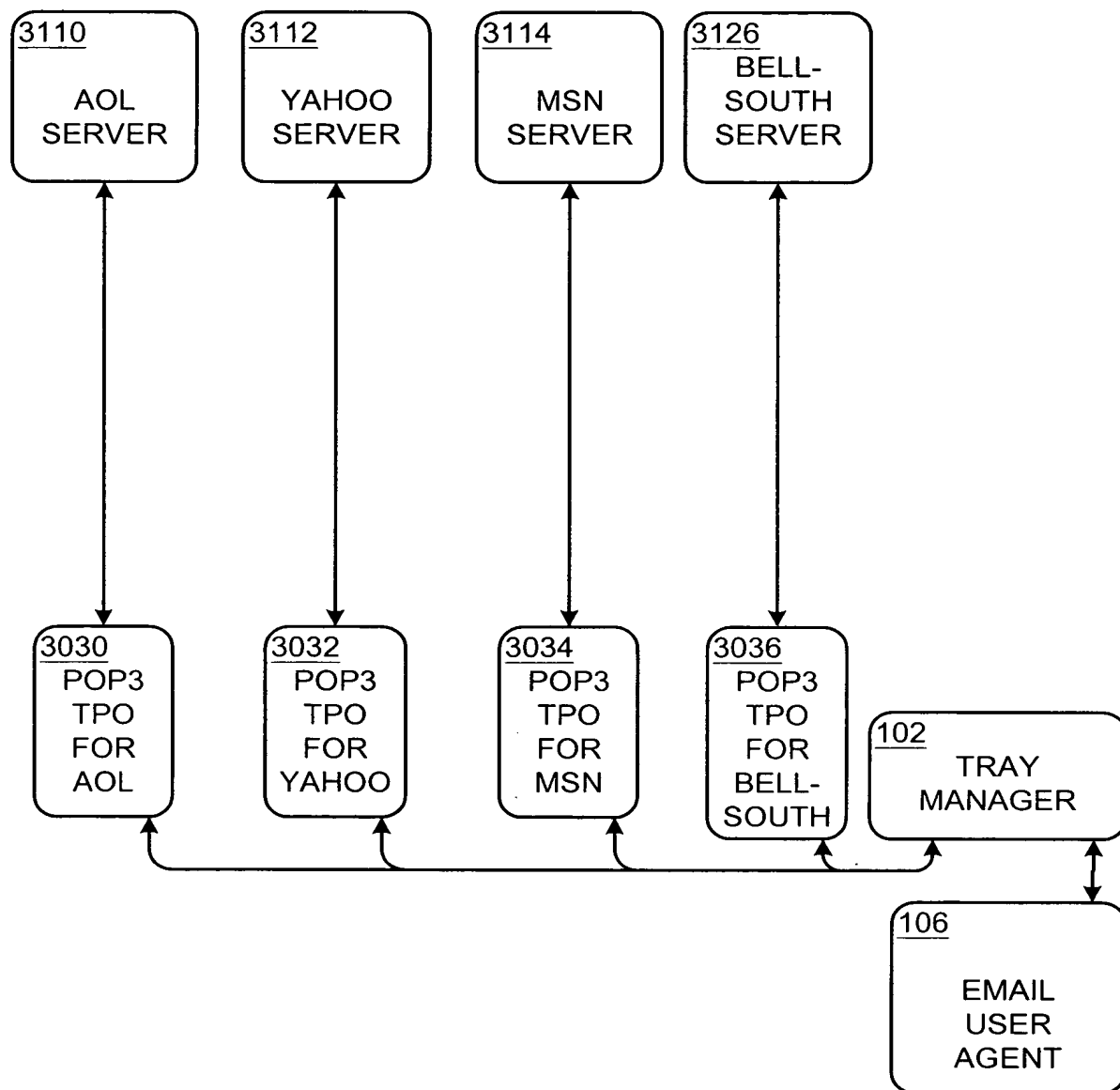


FIG. 31